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Andrea

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
NEWS 3	Jan 29	FSTA has been reloaded and moves to weekly updates
NEWS 4	Feb 01	DKILIT now produced by FIZ Karlsruhe and has a new update frequency
NEWS 5	Feb 19	Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS 6	Mar 08	Gene Names now available in BIOSIS
NEWS 7	Mar 22	TOXLIT no longer available
NEWS 8	Mar 22	TRCTHERMO no longer available
NEWS 9	Mar 28	US Provisional Priorities searched with P in CA/CAplus and USPATFULL
NEWS 10	Mar 28	LIPINSKI/CALC added for property searching in REGISTRY
NEWS 11	Apr 02	PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead.
NEWS 12	Apr 08	"Ask CAS" for self-help around the clock
NEWS 13	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 14	Apr 09	ZDB will be removed from STN
NEWS 15	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 16	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 17	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 18	Apr 22	Federal Research in Progress (FEDRIP) now available

NEWS EXPRESS	February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:37:53 ON 03 MAY 2002

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 16:37:58 ON 03 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 1 MAY 2002 HIGHEST RN 410069-15-7
DICTIONARY FILE UPDATES: 1 MAY 2002 HIGHEST RN 410069-15-7

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

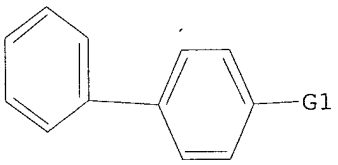
Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
Uploading 10073568.str

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



G1 X,CN

Structure attributes must be viewed using STN Express query preparation.

=> s l1 ful
FULL SEARCH INITIATED 16:38:50 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 142770 TO ITERATE

100.0% PROCESSED 142770 ITERATIONS 29115 ANSWERS
SEARCH TIME: 00.00.11

L2 29115 SEA SSS FUL L1

=> s l2 and caplus/lc
21416080 CAPLUS/LC
L3 27784 L2 AND CAPLUS/LC

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	144.66	144.87

FILE 'CAPLUS' ENTERED AT 16:39:27 ON 03 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 3 May 2002 VOL 136 ISS 18
FILE LAST UPDATED: 1 May 2002 (20020501/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s l2/p
L4 5434 L2/P

=> s l4 and Cu?/cn
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

<------User Break------>
u
SEARCH ENDED BY USER

=> s cu/cn
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L7 0 L6

=> s copper/cn
REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L9 357447 L8

=> d his

3

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     (FILE 'HOME' ENTERED AT 16:37:53 ON 03 MAY 2002)

     FILE 'REGISTRY' ENTERED AT 16:37:58 ON 03 MAY 2002
L1             STRUCTURE UPLOADED
L2         29115 S L1 FUL
L3         27784 S L2 AND CAPLUS/LC

     FILE 'CAPLUS' ENTERED AT 16:39:27 ON 03 MAY 2002
L4          5434 S L2/P
               S L4 AND CU?/CN

     FILE 'REGISTRY' ENTERED AT 16:40:25 ON 03 MAY 2002
L5         25841 S CU?/CN

     FILE 'CAPLUS' ENTERED AT 16:40:25 ON 03 MAY 2002
               S CU/CN

     FILE 'REGISTRY' ENTERED AT 16:40:39 ON 03 MAY 2002
L6             0 S CU/CN

     FILE 'CAPLUS' ENTERED AT 16:40:40 ON 03 MAY 2002
L7             0 S L6
               S COPPER/CN

     FILE 'REGISTRY' ENTERED AT 16:40:47 ON 03 MAY 2002
L8             1 S COPPER/CN

     FILE 'CAPLUS' ENTERED AT 16:40:48 ON 03 MAY 2002
L9        357447 S L8

=> s l5 and l9
        1109977 L5
L10      357447 L5 AND L9

=> s l4 and l9
L11           39 L4 AND L9

=> d 1-39 ibib abs hitstr
```

L11 ANSWER 1 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:935443 CAPLUS
DOCUMENT NUMBER: 136:58849
TITLE: Compositions and methods to improve the oral absorption of antimicrobial agents
INVENTOR(S): Choi, Seung-Ho; Lee, Jeoung-Soo; Keith, Dennis
PATENT ASSIGNEE(S): Cubist Pharmaceuticals, Inc., USA; International Health Management Associates, Inc.; University of Utah
Research Foundation
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001097851	A2	20011227	WO 2001-US19625	20010618
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6248360	B1	20010619	US 2000-598089	20000621

PRIORITY APPLN. INFO.: US 2000-598089 A 20000621
US 2001-829405 A 20010409
US 2001-283976P P 20010416

AB The present invention provides compns. and methods for increasing absorption of antibacterial agents, particularly third generation cephalosporin antibacterial agents, in oral dosage solid and/or suspension forms. Specifically, the compn. is comprised of a biopolymer that is preferably swellable and/or mucoadhesive, an antimicrobial agent, and a cationic binding agent contained within the biopolymer such that the binding agent is ionically bound or complexed to at least one member selected from the group consisting of the biopolymer and the antimicrobial agent. A soln. of 44.5 mg calcium chloride in 10 mL water and 1.0 g of ceftriaxone in 10 mL water was added gradually to a soln. of 400 mg carrageenan and the dispersion was centrifuged and the supernatant was lyophilized. The resulting compn. comprized carrageenan 27.7, ceftriaxone 1, and calcium chloride 3.1%. Plasma concn. of different antimicrobial-biopolymer complexes after oral administration to rats was measured.

IT **7440-50-8DP**, Copper, conjugates with biopolymers and antimicrobial agents **171099-57-3DP**, Oritavancin, conjugates with biopolymers and cationic binding agents
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(compns. and methods to improve oral absorption of antimicrobial agents)

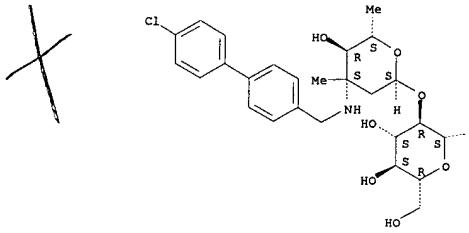
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

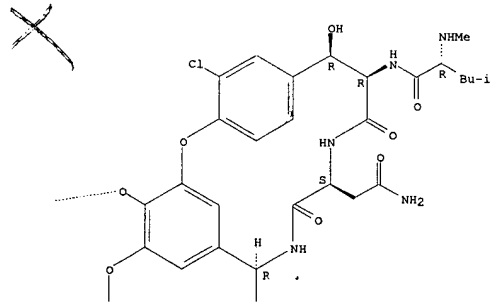
RN 171099-57-3 CAPLUS
CN Vancomycin, 22-O-(3-amino-2,3,6-trideoxy-3-C-methyl-.alpha.-L-arabino-hexopyranosyl)-N3''-[(4'-chloro[1,1'-biphenyl]-4-yl)methyl]-, (4''R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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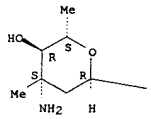
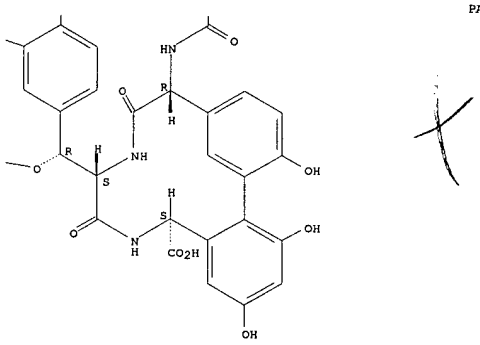


PAGE 2-B



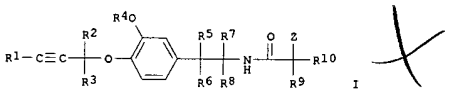
5

L11 ANSWER 2 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:851100 CAPLUS
DOCUMENT NUMBER: 135:371520
TITLE: Preparation of novel phenyl propargyl ethers as agrochemical fungicides
INVENTOR(S): Lamberth, Clemens; Zeller, Martin; Kunz, Walter; Cederbaum, Fredrik
PATENT ASSIGNEE(S): Syngenta Participations A.-G., Switz.
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001087822	A1	20011122	WO 2001-EP5530	20010515

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 2000-11944 A 20000517
OTHER SOURCE(S): MARPAT 135:371520
GI



I

AB The title compds. [I; R1 = H, alkyl, cycloalkyl, (un)substituted aryl; R2, R3 = H, alkyl; R4 = alkyl, alkenyl, alkynyl; R5- R8 = H, alkyl; R9 = H, (un)substituted alkyl, alkenyl or alkynyl; R10 = (un)substituted (hetero)aryl; Z = halo, (un)substituted aryloxy, alkoxy, etc.] which possess useful plant protecting properties and may advantageously be employed in agricultural practice for controlling or preventing the infestation of plants by phytopathogenic microorganisms, esp. fungi (biol. data given), were prepd. E.g., a multi-step synthesis of I [R1-R3 = H; R4 = Me; R5-R8 = H; R9 = H; R10 = 4-ClC6H4; Z = OMe] was given.

IT **7440-50-8D**, Copper, salts, biological studies
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(addnl. fungicides claimed in compns. with novel Ph propargyl ethers as agrochem. fungicides)

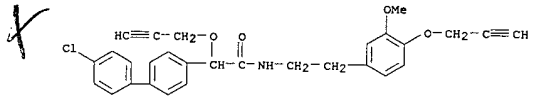
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

L11 ANSWER 2 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

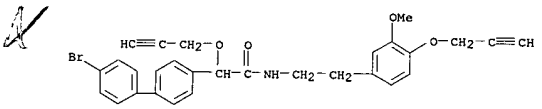
Cu

IT **374727-91-0P 374727-93-2P 374727-96-5P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of novel Ph propargyl ethers as agrochem. fungicides)

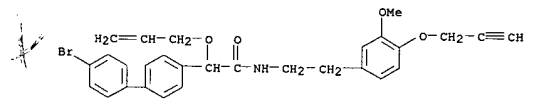
RN 374727-91-0 CAPLUS
CN [1,1'-Biphenyl]-4-acetamide, 4'-chloro-N-[2-[3-methoxy-4-(2-propynyloxy)phenyl]ethyl]-.alpha.-(2-propynyloxy)- (9CI) (CA INDEX NAME)



RN 374727-93-2 CAPLUS
CN [1,1'-Biphenyl]-4-acetamide, 4'-bromo-N-[2-[3-methoxy-4-(2-propynyloxy)phenyl]ethyl]-.alpha.-(2-propynyloxy)- (9CI) (CA INDEX NAME)



RN 374727-96-5 CAPLUS
CN [1,1'-Biphenyl]-4-acetamide, 4'-bromo-N-[2-[3-methoxy-4-(2-propynyloxy)phenyl]ethyl]-.alpha.-(2-propenyloxy)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:435186 CAPLUS
DOCUMENT NUMBER: 135:55020
TITLE: Substituted phthalocyanines and their precursors
INVENTOR(S): Cook, Michael John; Heeney, Martin James
PATENT ASSIGNEE(S): Gentian AS, Norway
SOURCE: PCT Int. Appl., 146 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042368	A1	20010614	WO 2000-GB4708	20001208

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 1999-29064 A 19991208
GB 2000-12348 A 20000522
GB 2000-25817 A 20001020
OTHER SOURCE(S): MARPAT 135:55020

AB Process is claimed for the prepn. of metal phthalocyanines and their precursors including phthalonitrile sulfonate esters, substituted phthalonitriles and substituted phthalocyanines, phthalonitrile halides. For example 3,6-didecylphthalonitrile was prepd. from 3,6-bis(trifluoromethanesulfonyloxy)phthalonitrile and decylzinc iodide and reacted with 4,5-dibromo-3,6-dibutoxyphthalonitrile, prepd. from bromination of 2,3-dicyanohydroquinone, in presence of Ni(OAc)2.4H2O to give [1,4-dibutoxy-2,3-dibromo-8,11,15,18,22,25-hexadecylphthalocyaninato]nickel. The metal phthalocyanine derivs. have applications as photosensitizers for use in photodynamic therapy.

IT **7440-50-8D**, Copper, phthalocyanine deriv. complexes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(as photosensitizers and for use in photodynamic therapy)

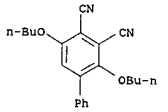
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

L11 ANSWER 3 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

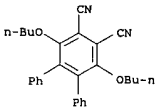
Cu

IT **344453-70-9P 344453-71-0P 344453-72-1P**
344453-73-2P 344453-74-3P 344453-75-4P
344453-76-5P 344453-77-6P 344453-78-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reactant for prepn. of metal phthalocyanine complexes for use in photodynamic therapy and as photosensitizers)

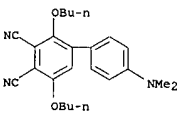
RN 344453-70-9 CAPLUS
CN [1,1'-Biphenyl]-3,4-dicarbonitrile, 2,5-dibutoxy- (9CI) (CA INDEX NAME)



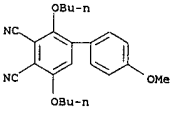
RN 344453-71-0 CAPLUS
CN [1,1':2',1''-Terphenyl]-4',5'-dicarbonitrile, 3',6'-dibutoxy- (9CI) (CA INDEX NAME)



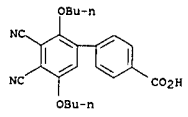
RN 344453-72-1 CAPLUS
CN [1,1'-Biphenyl]-3,4-dicarbonitrile, 2,5-dibutoxy-4'-(dimethylamino)-(9CI) (CA INDEX NAME)



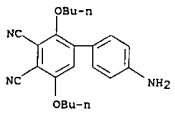
RN 344453-73-2 CAPLUS
CN [1,1'-Biphenyl]-3,4-dicarbonitrile, 2,5-dibutoxy-4'-methoxy- (9CI) (CA INDEX NAME)



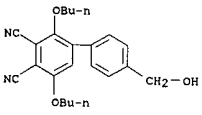
RN 344453-74-3 CAPLUS
CN [1,1'-Biphenyl]-4-carboxylic acid, 2',5'-dibutoxy-3',4'-dicyano- (9CI) (CA INDEX NAME)



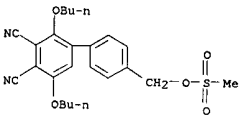
RN 344453-75-4 CAPLUS
CN [1,1'-Biphenyl]-3,4-dicarbonitrile, 4'-amino-2,5-dibutoxy- (9CI) (CA INDEX NAME)



RN 344453-76-5 CAPLUS
CN [1,1'-Biphenyl]-3,4-dicarbonitrile, 2,5-dibutoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)

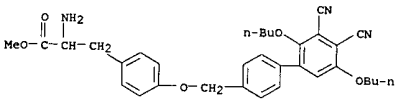


RN 344453-77-6 CAPLUS
CN [1,1'-Biphenyl]-3,4-dicarbonitrile, 2,5-dibutoxy-4'-[[(methylsulfonyl)oxy]methyl]- (9CI) (CA INDEX NAME)



RN 344453-78-7 CAPLUS
CN Tyrosine, O-[(2',5'-dibutoxy-3',4'-dicyano[1,1'-biphenyl]-4-yl)methyl]-,

methyl ester (9CI) (CA INDEX NAME)



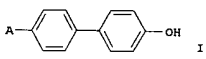
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2001:416431 CAPLUS
DOCUMENT NUMBER: 135:5446
TITLE: Procedure for the production of 4'-alkyl-4-hydroxybiphenyls
INVENTOR(S): Waechtler, Andreas; Fechtel, Ulrich; Wembacher, Karl-Heinz
PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany
SOURCE: Ger. Offen., 4 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

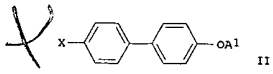
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19958061	A1	20010607	DE 1999-19958061	19991202
WO 2001040154	A1	20010607	WO 2000-EP12123	20001201

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

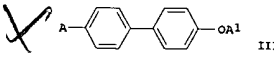
PRIORITY APPLN. INFO.: DE 1999-19958061 A 19991202
OTHER SOURCE(S): MARPAT 135:5446
GI



I



II



III

AB 4'-Alkyl-4-hydroxy-biphenyls [I; A = (un)substituted C1-10 alkyl] [e.g., 4-hydroxy-4'-(2-methylbutyl)biphenyl], useful in the prepn. of cholesteric liq. crystals (no data), are prepd. in high yield by the reaction of 4'-halo-4-alkoxybiphenyls [II; A1 = (un)substituted C1-8 alkyl; X = Cl, Br, I] (e.g., 4'-bromo-4-methoxybiphenyl) with A-group-contg. Grignard reagents to give 4'-alkyl-4-alkoxybiphenyls [III; e.g., 4-methoxy-4'-(2-methylbutyl)biphenyl] which are subjected to ether cleavage in the presence of alkali metal alcoholates (e.g., potassium tert-butoxide).

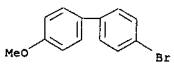
IT **7440-50-8**, Copper, uses
RL: CAT (Catalyst use); USES (Uses)
(catalyst in the Grignard coupling reaction of 4'-halo-4-alkoxybiphenyls in the prepn. of 4'-alkyl-4-alkoxybiphenyls)

RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **58743-83-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in a procedure for the prodn. of 4'-alkyl-4-hydroxybiphenyls)

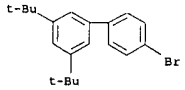
RN 58743-83-2 CAPLUS
CN 1,1'-Biphenyl, 4-bromo-4'-methoxy- (9CI) (CA INDEX NAME)



L11 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:221289 CAPLUS
DOCUMENT NUMBER: 135:19323
TITLE: New Fluorogenic Probes for Oxygen and Carbene Transfer: A Sensitive Assay for Single Bead-Supported Catalysts
AUTHOR(S): Moreira, Rayane; Havranek, Miroslav; Sames, Dalibor
CORPORATE SOURCE: Department of Chemistry, Columbia University, New York, NY, 10027, USA
SOURCE: Journal of the American Chemical Society (2001), 123(17), 3927-3931
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A high-throughput screening assay for atom transfer catalysis has been developed. This assay is based on two probes, developed herein, which generate highly fluorescent products upon carbene or oxygen atom transfer.
The emission wavelength of 2 probes shift significantly (up to 90 nm) upon epoxidn., allowing detection of product at 3% conversion. Another probe is not fluorescent, while fluorescence emission by its carbene insertion/rearrangement product allows detection at less than 1% conversion. Such sensitivity allows for examn. of single-bead reactions in a high throughput array format (1536 wells per plate), and provides a broad detection window ranging from single to high turnover nos. Thousands of metal complexes are evaluated in a single screening expt. Preliminary screening of a diverse ligand library with the carbene insertion/rearrangement probe in the presence of Rh(II) uncovered new catalysts capable of cyclopropanation and C-H insertion.

IT **343254-68-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(coupling reaction; sensitive assay for single bead-supported catalysts using new fluorogenic probes for oxygen and carbene transfer)
RN 343254-68-2 CAPLUS
CN 1,1'-Biphenyl, 4'-bromo-3,5-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



IT **7440-50-8D**, Copper, polymer-bound catalysts, uses
RL: CAT (Catalyst use); USES (Uses)
(sensitive assay for single bead-supported catalysts using new fluorogenic probes for oxygen and carbene transfer)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L11 ANSWER 5 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:619404 CAPLUS
DOCUMENT NUMBER: 133:177029
TITLE: Preparation of aromatic nitriles from aromatic aldehydes
INVENTOR(S): Takagawa, Minoru; Yoshihara, Jun; Koshikawa, Takeshi
PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000239247	A2	20000905	JP 1999-43454	19990222

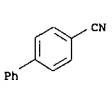
OTHER SOURCE(S): CASREACT 133:177029

AB Arom. nitriles are prepd. by mixing and gas-phase reaction of arom. aldehydes with NH3 in the presence of catalyst layer. 4-Phenylbenzaldehyde was reacted with NH3 in the presence of catalyst (prepd. by burning copper acetate and alumina and reduced at 200.degree.) at 314.degree. to give 85% 4-phenylbenzonitrile.

IT **7440-50-8**, Copper, uses
RL: CAT (Catalyst use); USES (Uses)
(catalyst; prepn. of arom. nitriles by cyanation of arom. aldehydes)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

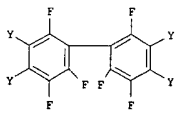
IT **2920-38-9P**, 4-Phenylbenzonitrile
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of arom. nitriles by cyanation of arom. aldehydes)
RN 2920-38-9 CAPLUS
CN [1,1'-Biphenyl]-4-carbonitrile (9CI) (CA INDEX NAME)

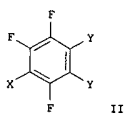


L11 ANSWER 7 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:331289 CAPLUS
DOCUMENT NUMBER: 131:5107
TITLE: Preparation of 2,2',5,5',6,6'-hexafluorobiphenyl-3,3',4,4'-tetracarboxylic acid precursors as materials for fluoropolymers
INVENTOR(S): Kashima, Mikito; Noda, Yumiki; Machida, Toshikazu
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11140023	A2	19990525	JP 1997-308216	19971111

OTHER SOURCE(S): CASREACT 131:5107; MARPAT 131:5107
GI

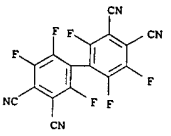




AB Title compds. I (Y = CN, CO2R; R = C1-5 alkyl) are prepd. by reaction of II (Y, R = same as I; X = Br, I) with powdery Cu having particle diam. .ltoreq.125 .mu.m (120 mesh under).
4-Bromo-3,5,6-trifluorophthalonitrile was dimerized in the presence of powdery Cu (.ltoreq.63 .mu.m) in DMF at 60.degree. for 3.5 h, filtrated, washed, mixed with MgSO4, activated C, filtrated to give 71% 2,2',5,5',6,6'-hexafluorobiphenyl-3,3',4,4'-tetracarbonitrile contg. 3.2 ppm Cu.

IT **136290-42-1P**
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of hexafluorobiphenyltetracarbonitriles by Ullmann reaction of bromotrifluorophthalonitriles with Cu)
RN 136290-42-1 CAPLUS
CN [1,1'-Biphenyl]-3,3',4,4'-tetracarbonitrile, 2,2',5,5',6,6'-hexafluoro- (9CI) (CA INDEX NAME)

L11 ANSWER 7 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



IT **7440-50-8**, Copper, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of hexafluorobiphenyltetracarbonitriles by Ullmann reaction of bromotrifluorophthalonitriles with Cu)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L11 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:499294 CAPLUS
DOCUMENT NUMBER: 129:216375
TITLE: Unsymmetrical Triaryldiamines as Thermally Stable Hole Transporting Layers for Organic Light-Emitting Devices
AUTHOR(S): Koene, Bryan E.; Loy, Douglas E.; Thompson, Mark E.
CORPORATE SOURCE: Department of Chemistry, University of Southern California, Los Angeles, CA, 90089, USA
SOURCE: Chem. Mater. (1998), 10(8), 2235-2250
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

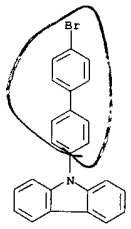
AB The synthesis of a series of unsym. triaryldiamines has provided a no. of materials with a wide range of thermal, electrochem., and spectroscopic properties. The asym. materials described herein have two different diarylamine groups bound to a 1,4-phenylene or 4,4'-biphenylene core, i.e., Ar1Ar2N-C6H4-NAr1'Ar3 or Ar1Ar2N-biphenyl-NAr1'Ar3, resp. The diarylamines studied include diphenylamine, phenyl-m-tolylamine, naphthylphenylamine, iminostilbene, iminodibenzyl, and carbazole. These materials were prepd. by copper- and palladium-catalyzed coupling of aryl halides and diarylamines. The asymmetry inherent in these compds. prevents these low mol. mass compds. from crystg., thus yielding higher thermal stability over that of the sym. derivs. In all cases, the unsym. diamines form stable glasses, with glass transition temps. up to 125.degree.. HOMO levels for these materials, estd. by cyclic voltammetry, show a broad range of values, with oxidn. potentials both lower and higher than those of common hole transport materials used in org. light emitting devices.

IT **7440-50-8**, Copper, uses
RL: CAT (Catalyst use); USES (Uses)
(unsym. triaryldiamines as thermally stable hole transporting layers for org. light-emitting devices)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

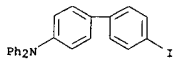
Cu

IT **212385-73-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(unsym. triaryldiamines as thermally stable hole transporting layers for org. light-emitting devices)
RN 212385-73-4 CAPLUS
CN 9H-Carbazole, 9-(4'-bromo[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)

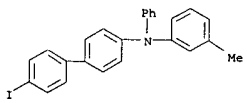
L11 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



IT **167218-38-4P 195443-34-6P 207447-27-6P**
210405-34-8P 212385-51-8P 212385-52-9P
212385-53-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(unsym. triaryldiamines as thermally stable hole transporting layers for org. light-emitting devices)
RN 167218-38-4 CAPLUS
CN [1,1'-Biphenyl]-4-amine, 4'-iodo-N,N-diphenyl- (9CI) (CA INDEX NAME)

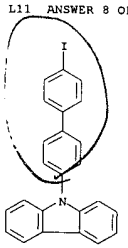


RN 195443-34-6 CAPLUS
CN [1,1'-Biphenyl]-4-amine, 4'-iodo-N-(3-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

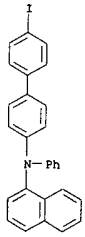


RN 207447-27-6 CAPLUS
CN 9H-Carbazole, 9-(4'-iodo[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)

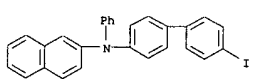
L11 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 210405-34-8 CAPLUS
CN 1-Naphthalenamine, N-(4'-iodo[1,1'-biphenyl]-4-yl)-N-phenyl- (9CI) (CA INDEX NAME)

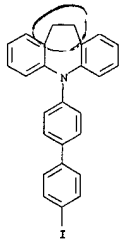


RN 212385-51-8 CAPLUS
CN 2-Naphthalenamine, N-(4'-iodo[1,1'-biphenyl]-4-yl)-N-phenyl- (9CI) (CA INDEX NAME)

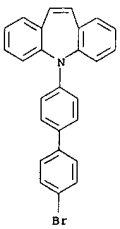


RN 212385-52-9 CAPLUS
CN 5H-Dibenz[b,f]azepine, 10,11-dihydro-5-(4'-iodo[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)

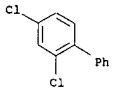
L11 ANSWER 8 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 212385-53-0 CAPLUS
CN 5H-Dibenz[b,f]azepine, 5-(4'-bromo[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)



L11 ANSWER 9 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:612338 CAPLUS
DOCUMENT NUMBER: 121:212338
TITLE: Reductive Dechlorination of Polychlorinated Biphenyls in St. Lawrence River Sediments and Variations in Dechlorination Characteristics
AUTHOR(S): Sokol, Roger C.; Kwon, O-Seob; Bethoney, Charlotte M.; Rhee, G.-Yull
CORPORATE SOURCE: Wadsworth Center for Laboratories and Research, New York State Department of Health, Albany, NY, 12201-0509, USA
SOURCE: Environ. Sci. Technol. (1994), 28(12), 2054-64
CODEN: ESTHAG; ISSN: 0013-936X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sediment cores taken near industrial plants on the St.Lawrence River showed evidence of in situ dechlorination. The extent of dechlorination varied widely from site to site, ranging from 2 to 45%, based on the av. no. of Cl atoms. The absence of dechlorination at one site was not due to the lack of competent microorganisms but seemed to be assocd. with a high level of cocontaminants. There was no correlation between sediment PCB concns. and the extent of dechlorination. Lab. dechlorination assays with single congeners and Aroclor 1248, the primary contaminant, revealed significant differences in dechlorination characteristics, suggesting wide difference in dechlorinating populations among the three sites. The differences in dechlorination pattern between native and lab. sediments suggested the involvement of sediment characteristics in the selection of dechlorinating populations.
IT **33284-50-3P**, 2,4-Dichlorobiphenyl
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, by reductive dechlorination of trichlorobiphenyl in sediment of St. Lawrence River)
RN 33284-50-3 CAPLUS
CN 1,1'-Biphenyl, 2,4-dichloro- (9CI) (CA INDEX NAME)



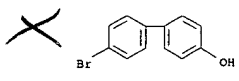
IT **7440-50-8**, Copper, biological studies
RL: POL (Pollutant); OCCU (Occurrence)
(sediment pollution by, of St. Lawrence River)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L11 ANSWER 10 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:457109 CAPLUS
DOCUMENT NUMBER: 121:57109
TITLE: The copper-catalyzed hydrolysis of 4,4'-dibromobiphenyl derivatives
AUTHOR(S): Hanaoka, Takaaki; Yoshihiro, Sugi; Uchi, Kazutaka; Abe, Yoshimoto; Misono, Takahisa
CORPORATE SOURCE: Natl. Inst. Mater. Chem. Res., Tsukuba, 305, Japan
SOURCE: Sekiyu Gakkaishi (1994), 37(3), 328-32
CODEN: SKGSAE; ISSN: 0582-4664
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
OTHER SOURCE(S): CASREACT 121:57109
AB Hydrolysis of 4,4'-dibromobiphenyl (I), 2,7-dibromo-9,10-dihydrophenanthrene (II), and 2,7-dibromoflucrene (III) was studied using copper compds. as catalysts in an aq. ethanol soln. of sodium hydroxide. Hydrolysis of I and II occurred above 150 .degree.C and gave corresponding diols 4,4'-biphenol (IV) and 2,7-dihydroxy-9,10-dihydrophenanthrene (V), resp., in moderate to excellent yields. Hydrolysis of I proceeded by a consecutive mechanism yielded give IV vis 4'-bromo-4-hydroxybiphenyl. The copper catalysts, cupric oxide, cuprous oxide, cuprous iodide, and copper metal powder, gave similar product distributions, and XRD analyses showed all catalysts were reduced to copper metal after reaction. The contact between catalyst, substrate, and sodium hydroxide was essential to proceed the hydrolysis of I and II. The use of ethanol as solvent and vigorous stirring were highly effective for improving the yield of IV and V. Under conditions of poor contact, debromination of I was also accompanied to yield 4-hydroxybiphenyl and biphenyl as byproducts. Hydrolysis of III gave poor yields of 2,7-dihydroxyfluorene. The hydrolysis was prevented because of fluorene anion formed by the extn. of 9-H under highly basic conditions.
IT **7440-50-8**, Copper, uses
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for hydrolysis of dibromobiphenyl derivs.)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **29558-77-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 29558-77-8 CAPLUS
CN [1,1'-Biphenyl]-4-ol, 4'-bromo- (9CI) (CA INDEX NAME)



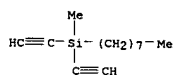
L11 ANSWER 11 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:77782 CAPLUS
DOCUMENT NUMBER: 120:77782
TITLE: The palladium-catalyzed cross-coupling polymerization of diethynylmethyl (n-octyl)silane with dihaloarenes
AUTHOR(S): Corriu, R. J. P.; Douglas, W. E.; Yang, Z. X.
CORPORATE SOURCE: Unite Mixte, CNRS, Montpellier, 34095, Fr.
SOURCE: Eur. Polym. J. (1993), 29(12), 1563-9
CODEN: EUPJAG; ISSN: 0014-3057
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymers of structure -[-CCSi(MeOctn)CC-Z-]-n(Z = 1,4-benzene, 4,4'-biphenyl, 9,10-anthracene, 2,7-fluorene, 2,5 and 2,6-pyridine, 6,6'-bipyridine, 2,5-thiophene, 2,6-p-dimethylaminonitrobenzene, 2,6-p-nitroaniline, 2,7-fluoren-9-one, p-tetrafluorobenzene, 2,6-p-nitrophenol or 2,6-p-cyanophenol) were prepd. by reaction of diethynylmethyl(n-octyl)silane with the appropriate hetero(arom.) dibromide or diiodide in the presence of (PPh3)2PdCl2 and CuI. The polymer where Z = 6,6'-bipyridine reacted with copper(II) trifluoromethanesulfonate to give a copper(II)-contg. polymer, redn. of which with hydrazine afforded the Cu(I)-contg. polymer. The effect of change in reaction conditions on the cross-coupling polymn. was investigated. High mol. wts. are favored by use of: (a) the diiodo- rather than the dibromoarene, (b) an equimolar mixt. of the reactants or excess diethynylsilane, and in most cases (c) toluene cosolvent. The mol. wt. passes through a max. as the total catalyst concn. is increased, or as the individual Cu and Pd catalyst concns. are sep. raised. The presence of tetraethylammonium chloride or high concns. of triphenylphosphine reduces the mol. wt.
IT **7440-50-8DP**, Copper, complexes with 6,6'-dibromobipyridine-diethynylmethyl(n-octyl)silane copolymer **152194-72-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

RN 152194-72-4 CAPLUS
CN Silane, diethynylmethyloctyl-, polymer with 4,4'-diiodo-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1

CRN 151273-91-5
CMF C13 H22 Si

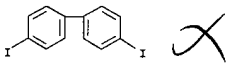


CM 2

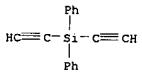
10

L11 ANSWER 11 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

CRN 3001-15-8
CMF C12 H8 I2

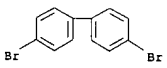


L11 ANSWER 12 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



CM 2

CRN 92-86-4
CMF C12 H8 Br2



L11 ANSWER 12 OF 39 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:581376 CAPLUS
DOCUMENT NUMBER: 119:181376
TITLE: Preparation of diphenylsilylene polymers containing main-chain acetylene and (hetero)aromatic groups: .chi.(2) nonlinear optical and other properties
AUTHOR(S): Corriu, Robert J. P.; Douglas, William E.; Yang, Zhi-xin; Karakus, Yusuf; Cross, Graham H.; Bloor, David
CORPORATE SOURCE: Unite Mixte CNRS/Rhone Poulenc/USTL, CNRS UMR 44, Universite de Montpellier II Sciences et Techniques du Languedoc, Place Eugene Bataillon, Montpellier, 34095/5, Fr.
SOURCE: J. Organomet. Chem. (1993), 455(1-2), 69-76
CODEN: JORCAI; ISSN: 0022-328X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The title polymers, (C.tplbond.CSiPh2C.tplbond.CZ)n (I; Z = p-C6H4, 4,4'-biphenylyl, 9,10-anthracenediyl, fluorenediyl, 2,2'-bipyridine-6,6'diyl, pyridinediyl, 2,5-thiophenediyl, aminonitro-m-phenylene, hydroxynitro-m-phenylene, cyanohydroxy-m-phenylene, or p-C6F4) are prepd. by reaction of SiPh2(C.tplbond.CH)2 with the appropriate arylene dihalide in the presence of (PPh3)2PdCl2, CuI and PPh3, the solvent being either NEt3 or NEt3/PhMe. The av. mol. wts. of the polymers were 2600-34,000. The UV spectra have absorption max. at 250-400 nm. The I (Z = 2-(dimethylamino)-5-nitro-m-phenylene) is .chi.(2) active, r33 is 0.8 pm/V following fixed electrode poling at 17.5 V/.mu.m. The polymers do not melt below the decompn. temp., and all transitions shown in the DSC thermogram at .ltoreq.300.degree. were absent on repeat scans. TGA and thermal dynamic anal. of I (Z = p-C6H4) indicated decompn. commencing at 290.degree. and continuing to .apprx.750.degree.. The residue was composed of .alpha.-SiC and amorphous C.

IT **7440-50-8D**, Copper, 6,6'-dibromo-2,2'-bipyridine-diethynyldiphenylsilane copolymer complexes
RL: PRP (Properties)
(characterization of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **131174-87-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)
RN 131174-87-3 CAPLUS
CN Silane, diethynyldiphenyl-, polymer with 4,4'-dibromo-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1

CRN 1675-57-6
CMF C16 H12 Si

L11 ANSWER 13 OF 39 CAPLUS COPYRIGHT 2002 ACS

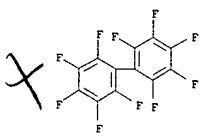
ACCESSION NUMBER: 1993:495015 CAPLUS
DOCUMENT NUMBER: 119:95015
TITLE: (Perfluoroalkyl)polyfluoroarenes by copper-promoted cross-coupling of perfluoroalkyl halides and polyfluoroarenes
AUTHOR(S): Weigert, F. J.
CORPORATE SOURCE: Cent. Res. Dev. Dep., EI Du Pont de Nemours and Co., Wilmington, DE, 19880-0328, USA
SOURCE: J. Fluorine Chem. (1993), 61(1-2), 1-9
CODEN: JFLCAR; ISSN: 0022-1139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:95015

AB Group 11 and 12 metals act as halogen acceptors to promote a selective cross-coupling between perfluoroalkyl halides and polyfluoroarenes to give (perfluoroalkyl)polyfluoroarenes. This reaction is a non-catalytic, fluorine analog of Friedel-Crafts alkylation in hydrocarbon chem. Thus, at 600.degree. with flows of 1 mL h-1 for C6F6 and 5 mL min-1 for CF3Br over 5 g of copper-chromite Harshaw CU 0203 as halogen acceptor in a flow tube gave coupling product C6F5CF3 as 40% of the initial effluent. All four halides (F, Cl, Br, I) on a fluoroarene can be the site of C-C bond formation. Arenes attempted for this reaction include benzenes, pyridines, and naphthalenes. Tolerated ring substituents which are not displaced in the coupling reaction include Rf, CN, and H.

IT **7440-50-8**, Copper, uses
RL: USES (Uses)
(cross-coupling of perfluoroalkyl halides with polyfluoroarenes promoted by)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

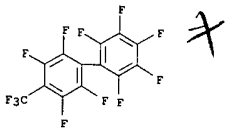
Cu

IT **434-90-2P**, Perfluorobiphenyl
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cross-coupling reaction of, with perfluoroalkyl halide, copper-promoted)
RN 434-90-2 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,5',6,6'-decafluoro- (9CI) (CA INDEX NAME)

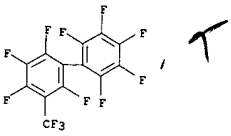


IT **5121-76-6P 63539-48-0P 64528-78-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 5121-76-6 CAPLUS

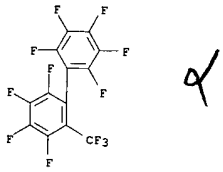
L11 ANSWER 13 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
CN 1,1'-Biphenyl, 2,2',3,3',4,5,5',6,6'-nonafluoro-4'-(trifluoromethyl)-(9CI) (CA INDEX NAME)



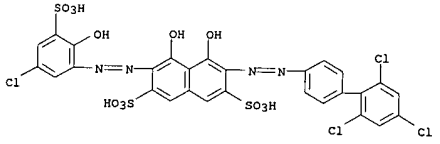
RN 63539-48-0 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,6,6'-nonafluoro-5'-(trifluoromethyl)-(9CI) (CA INDEX NAME)



RN 64528-78-5 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,5',6-nonafluoro-6'-(trifluoromethyl)-(9CI) (CA INDEX NAME)

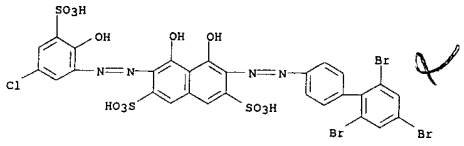


L11 ANSWER 14 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:51391 CAPLUS
DOCUMENT NUMBER: 118:51391
TITLE: Syntheses of new asymmetric chlorosulfophenolbisazo derivatives of chromatropic acid and their color reactions with niobium, zirconium, vanadium and other metallic ions
AUTHOR(S): Huang, Yali; Zhang, Huashan; Li, Xinyi
CORPORATE SOURCE: Dep. Chem., Wuhan Univ., Wuhan, 430072, Peop. Rep. China
SOURCE: Huaxue Shiji (1992), 14(4), 209-13, 248
CODEN: HUSHDR; ISSN: 0258-3283
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Twenty-two new asym. chlorosulfophenolbisazo derivs. of chromotropic acid were synthesized by changing the auxochrome group or the position of different substituents into o-, m-, or p- position to azo linkage of the arylazo structures. Their color reactions with Nb(V), Zr(IV), V(IV) and some other metallic ions were studied. These reagents and the complexes of Nb(V) have max. absorption at about 553 and 460 nm, resp. The molar absorptivities of complexes if Nb(V) with these reagents are about (2-5) .times. 104 L mol-1 cm-1. 4,8-Disulfonaphthaleneazochlorosulfophenol has been used to det. Nb(V) in steels. The results are satisfactory.
IT **145303-48-6P 145303-49-7P**
RL: RCT (Reactant); PREP (Preparation)
(prepn. and color reactions of, with niobium and vanadium and zirconium)
RN 145303-48-6 CAPLUS
CN 2,7-Naphthalenedisulfonic acid, 3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2',4',6'-trichloro[1,1'-biphenyl]-4-yl)azo]- (9CI) (CA INDEX NAME)



RN 145303-49-7 CAPLUS
CN 2,7-Naphthalenedisulfonic acid, 3-[(5-chloro-2-hydroxy-3-sulfophenyl)azo]-4,5-dihydroxy-6-[(2',4',6'-tribromo[1,1'-biphenyl]-4-yl)azo]- (9CI) (CA INDEX NAME)

L11 ANSWER 14 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



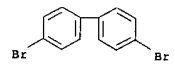
IT **7440-50-8D**, Copper, complex with disulfonaphthylazochlorophenol
RL: PRP (Properties)
(visible spectrum of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

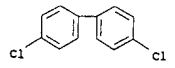
L11 ANSWER 15 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:651501 CAPLUS
DOCUMENT NUMBER: 117:251501
TITLE: Reactions of copper(II) .beta.-diketonates under free radical conditions. II. Diazonium salts as aryl radical source in the arylation of .beta.-diketones
AUTHOR(S): Lloris, Maria E.; Abramovitch, Rudolph A.; Marquet, Jorge; Moreno-Manas, Marcial
CORPORATE SOURCE: Dep. Chem., Univ. Auton. Barcelona, Bellaterra, 08193, Spain
SOURCE: Tetrahedron (1992), 48(33), 6909-16
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 117:251501
AB Copper complexes of 2,2,6,6-tetramethylheptane-3,5-dione and other .beta.-diketones afford .alpha.-aryl-.beta.-diketones when treated with arenediazonium tetrafluoroborates and copper powder in dichloromethane.
IT **7440-50-8**, Copper, uses
RL: RCT (Reactant)
(arylation of .beta.-diketones with arenediazonium salts in presence of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **92-86-4P 2050-68-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 92-86-4 CAPLUS
CN 1,1'-Biphenyl, 4,4'-dibromo- (9CI) (CA INDEX NAME)



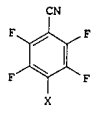
RN 2050-68-2 CAPLUS
CN 1,1'-Biphenyl, 4,4'-dichloro- (9CI) (CA INDEX NAME)



L11 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:489974 CAPLUS
DOCUMENT NUMBER: 117:89974
TITLE: Synthesis of 4,4'-octafluorobibenzonitrile, 4,4'-octafluorobibenzamide, and 4.4'-octafluorobibenzoic acid
INVENTOR(S): Imai, Yasushi; Niizeki, Shusuke; Yoshida, Masahiko; Miyata, Kazuyoshi; Shibafuchi, Hiroshi; Sasaki, Masanori
PATENT ASSIGNEE(S): Nippon Carbide Kogyo K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04089449	A2	19920323	JP 1990-199277	19900730
JP 11310564	A2	19991109	JP 1999-11300	19900730
JP 3040390	B2	20000515		

PRIORITY APPLN. INFO.: JP 1990-199277 A3 19900730
OTHER SOURCE(S): MARPAT 117:89974
GI



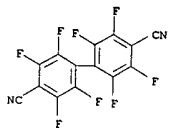
II

AB 4,4'-Octafluorobibenzonitrile (I) is prepd. by treating halobenzonitriles II (X = F, Cl, Br, iodo) with Cu in a polar org. solvent and hydrolysis of
I gives 4,4'-octafluorobibenzamide (III) when conducted in an aq. acid with .gtoreq.95% concn. or 4,4'-octafluorobibenzoic acid (IV) when conducted in an aq. acid with .ltoreq.90% concn. Thus, heating II (X = Br), powd. Cu, and sulfolane at 210.degree. gave 80% I, which was hydrolyzed with 97% H2SO4 to give 89.7% III or hydrolyzed with 70% H2SO4 to give 94.5% IV.
IT **7440-50-8**, Copper, reactions
RL: RCT (Reactant)
(powd., coupling of bromotetrafluorobenzonitrile in presence of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **28442-30-0P**, 4,4'-Octafluorobibenzonitrile
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolysis of, by sulfuric acid)
RN 28442-30-0 CAPLUS
CN [1,1'-Biphenyl]-4,4'-dicarbonitrile, 2,2',3,3',5,5',6,6'-octafluoro- (9CI)

L11 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
(CA INDEX NAME)



L11 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:107051 CAPLUS
DOCUMENT NUMBER: 116:107051
TITLE: Fluorinated poly(arylene ethers)
INVENTOR(S): Mercer, Frank W.; Sovish, Richard C.
PATENT ASSIGNEE(S): Raychem Corp., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9116369	A1	19911031	WO 1990-US7203	19901207
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
US 5115082	A	19920519	US 1990-583899	19900917
CA 2080832	AA	19911018	CA 1990-2080832	19901207
EP 524930	A1	19930203	EP 1991-902053	19901207
EP 524930	B1	19970312		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
JP 05506042	T2	19930902	JP 1991-502727	19901207
JP 3089032	B2	20000918		
AT 150043	E	19970315	AT 1991-902053	19901207
ES 2099155	T3	19970516	ES 1991-902053	19901207
CA 2080831	AA	19911018	CA 1991-2080831	19910415
US 5204416	A	19930420	US 1992-864804	19920407

PRIORITY APPLN. INFO.: US 1990-510353 A 19900417
US 1990-510386 A 19900417
US 1990-583899 A 19900917
WO 1990-US7203 W 19901207

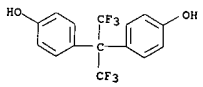
AB The title polymers, useful as dielec. materials in integrated circuit chips, contain F and are e.g., prepd. by polymg. compds. such as 4,4'-(hexafluoroisopropylidene)diphenol (I) and decafluorobiphenyl (II). Thus, heating I, II, AcNMe2, and K2CO3 at 80.degree., filtering to remove K2CO3 and KF, concg., cooling to room temp., and pouring in H2O pptd. polymer which, after workup and drying, was spin-cooled (in 2-ethoxyethyl ether) on a ceramic substrate to give a tough, flexible film with dielec. const. (0% relative humidity) 2.504.
IT **7440-50-8**, Copper, uses
RL: USES (Uses)
(in prepn. of coated ceramic materials for photolithog.)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **136875-49-5P**
RL: PREP (Preparation)
(prepn. of, as dielec. materials for chips)
RN 136875-49-5 CAPLUS
CN Phenol, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl (9CI) (CA INDEX NAME)

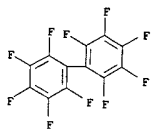
CM 1

L11 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
CRN 1478-61-1
CMF C15 H10 F6 O2



CM 2

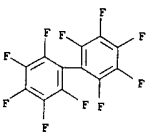
CRN 434-90-2
CMF C12 F10



IT **107502-16-9P 136875-63-3P 136875-64-4P 136990-30-2P 136990-31-3P 136990-32-4P 139100-18-8P**
RL: PREP (Preparation)
(prepn. of, dielec., for chip manuf.)
RN 107502-16-9 CAPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1

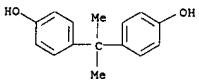
CRN 434-90-2
CMF C12 F10



CM 2

CRN 80-05-7

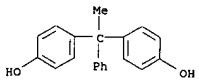
L11 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
CMF C15 H16 O2



RN 136875-63-3 CAPLUS
CN Phenol, 4,4'-(1-phenylethylidene)bis-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl (9CI) (CA INDEX NAME)

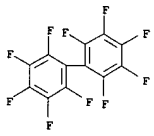
CM 1

CRN 1571-75-1
CMF C20 H18 O2



CM 2

CRN 434-90-2
CMF C12 F10

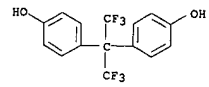


RN 136875-64-4 CAPLUS
CN 1,3-Benzenediol, 4,6-dichloro-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

CM 1

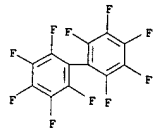
CRN 1478-61-1
CMF C15 H10 F6 O2

L11 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



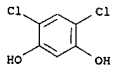
CM 2

CRN 434-90-2
CMF C12 F10



CM 3

CRN 137-19-9
CMF C6 H4 Cl2 O2

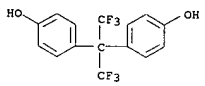


RN 136990-30-2 CAPLUS
CN 2,7-Naphthalenediol, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

CM 1

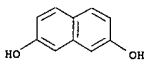
CRN 1478-61-1
CMF C15 H10 F6 O2

L11 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



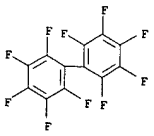
CM 2

CRN 582-17-2
CMF C10 H8 O2



CM 3

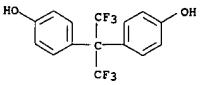
CRN 434-90-2
CMF C12 F10



RN 136990-31-3 CAPLUS
CN 1,5-Naphthalenediol, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

CM 1

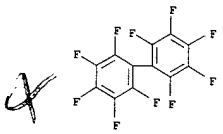
CRN 1478-61-1
CMF C15 H10 F6 O2



L11 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

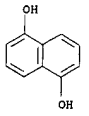
CM 2

CRN 434-90-2
CMF C12 F10



CM 3

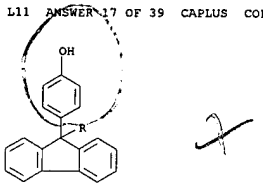
CRN 83-56-7
CMF C10 H8 O2

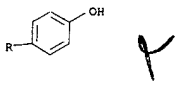


RN 136990-32-4 CAPLUS
CN 1,5-Naphthalenediol, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl and 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

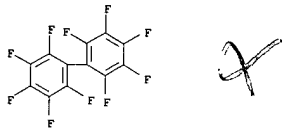
CRN 3236-71-3
CMF C25 H18 O2





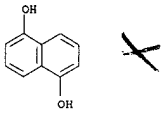
CM 2

CRN 434-90-2
CMF C12 F10



CM 3

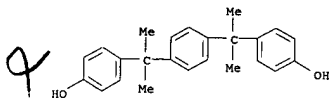
CRN 83-56-7
CMF C10 H8 O2



RN 139100-18-8 CAPLUS
CN Phenol, 4,4'-[1,4-phenylenebis(1-methylethylidene)]bis-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl (9CI) (CA INDEX NAME)

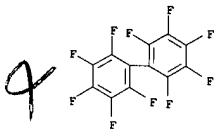
CM 1

CRN 2167-51-3
CMF C24 H26 O2



CM 2

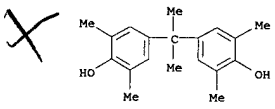
CRN 434-90-2
CMF C12 F10



IT **136875-51-9P 136875-53-1P 136875-55-3P**
RL: PREP (Preparation)
(prepn. of, dielec., for chips)
RN 136875-51-9 CAPLUS
CN Phenol, 4,4'-(1-methylethylidene)bis[2,6-dimethyl-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl (9CI) (CA INDEX NAME)

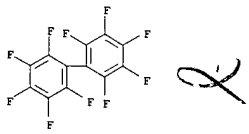
CM 1

CRN 5613-46-7
CMF C19 H24 O2



CM 2

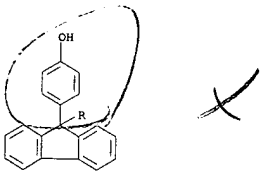
CRN 434-90-2
CMF C12 F10

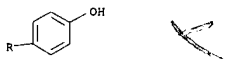


RN 136875-53-1 CAPLUS
CN Phenol, 4,4'-(9H-fluoren-9-ylidene)bis-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1

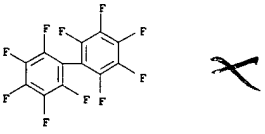
CRN 3236-71-3
CMF C25 H18 O2





CM 2

CRN 434-90-2
CMF C12 F10

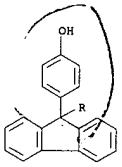


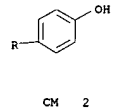
RN 136875-55-3 CAPLUS

CN Phenol, 4,4'-(9H-fluoren-9-ylidene)bis-, polymer with 2,2',3,3',4,4',5,5',6,6'-decafluoro-1,1'-biphenyl and 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[phenol] (9CI) (CA INDEX NAME)

CM 1

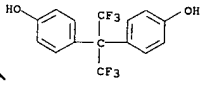
CRN 3236-71-3
CMF C25 H18 O2





CM 2

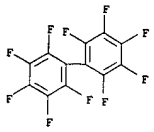
CRN 1478-61-1
CMF C15 H10 F6 O2



CM 3

CRN 434-90-2
CMF C12 F10

L11 ANSWER 17 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



L11 ANSWER 18 OF 39 CAPLUS COPYRIGHT 2002 ACS

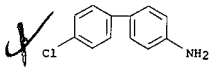
ACCESSION NUMBER: 1991:409991 CAPLUS
DOCUMENT NUMBER: 115:9991
TITLE: Synthesis and adsorption properties of polyether resins with pendent aryl group
AUTHOR(S): Zhang, Chaocan; Zhuo, Renxi; Luo, Xuangan; Wang, Jun; Yang, Liqun; Hu, Bin
CORPORATE SOURCE: Dep. Chem., Wuhan Univ., Peop. Rep. China
SOURCE: Gongneng Gaofenzi Xuebao (1990), 3(1), 59-64
CODEN: GGXUEH
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB Polyethers with pendant aryl group were prepd. by treating poly(.beta.-chloroethyl glycidyl ether) with 4-aminoazobenzene, 4-amino-2',3-dimethylazobenzene, 4-amino-4'-chlorobiphenyl, 4-hydroxyazobenzene, 4,4'-diamino-3,3'-dimethoxybiphenyl, and 1,3-di(4-hydroxy)phenylpropane, resp. The adsorption properties of these resins for Au(III), Pd(II), Pt(IV), Cu(II), Hg(II), and Pb(II) were studied. These resins had good adsorption capacity and selectivity for Au(III) in mixed ion solns.

IT **7440-50-8**, Copper, properties
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(adsorption of, by aryl-contg. poly(chloroethyl glycidyl ether))
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **135-68-2DP**, 4-Amino-4'-chlorobiphenyl, reaction products with poly(chloroethyl glycidyl ether)
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and metal adsorption properties of)
RN 135-68-2 CAPLUS
CN [1,1'-Biphenyl]-4-amine, 4'-chloro- (9CI) (CA INDEX NAME)

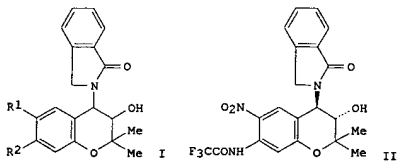


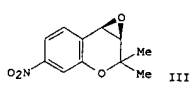
L11 ANSWER 19 OF 39 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:143144 CAPLUS
DOCUMENT NUMBER: 114:143144
TITLE: Preparation of 3,4-dihydro-2,2-dimethyl-3-hydroxy-4-(2,3-dihydro-1-oxo-1H-isoindol-2-yl)-benzopyrans as antihypertensives
INVENTOR(S): Soll, Richard Michael; Dollings, Paul Jeffrey
PATENT ASSIGNEE(S): American Home Products Corp., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9012011	A1	19901018	WO 1990-US1981	19900411
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
US 4908378	A	19900313	US 1989-336966	19890412
AU 9055258	A1	19901105	AU 1990-55258	19900411
PRIORITY APPLN. INFO.:			US 1989-336966	19890412
			GB 1990-5538	19900312
			WO 1990-US1981	19900411

OTHER SOURCE(S): MARPAT 114:143144
GI





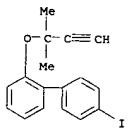
AB The title compds. (I; R1 = F3CSO2, F3CSO; R2 = H; or R1 = H, NO2; R2 = F3CCONH), were prepd. I are said to be active K chanell activators, effective in disorders involving smooth muscle contraction of the gastro-intestinal tract, urinary tract, and treatment of baldness and hair loss (no data). Thus, title compd. (II), prepd. in several steps from epoxide III, at 0.08 mg/kg orally in rats reduced blood pressure by 33% after 4 h.

IT **7440-50-8**, Copper, uses and miscellaneous
RL: USES (Uses)
(bis(trifluoromethylthio)mercury and, for trifluoromethylthiolation of

L11 ANSWER 19 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
iodobenzopyran)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

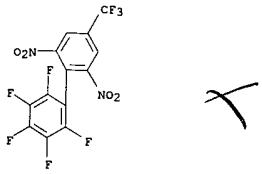
IT **132907-53-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for antihypertensive)
RN 132907-53-0 CAPLUS
CN 1,1'-Biphenyl, 2-[(1,1-dimethyl-2-propynyl)oxy]-4'-iodo- (9CI) (CA INDEX NAME)



L11 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:121712 CAPLUS
DOCUMENT NUMBER: 114:121712
TITLE: Preparation of perfluoroalkylnitrobenzenes as intermediates for drugs and agrochemicals
INVENTOR(S): Powell, Richard Llewellyn; Heaton, Charles Alan
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: Eur. Pat. Appl., 5 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 395342	A2	19901031	EP 1990-304360	19900424
EP 395342	A3	19920129		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
JP 02295945	A2	19901206	JP 1990-108985	19900426
US 5113013	A	19920512	US 1990-515509	19900426
PRIORITY APPLN. INFO.:			GB 1989-9574	19890426

OTHER SOURCE(S): MARPAT 114:121712
AB Fluorine-contg. org. compds. were prepd. by reacting a sulfonyl halide of the formula: RfSO2X (Rf = fluorinated org. radical and X = halo) with a reactive org. halide in the presence of a metal known to complex with fluorinated org. radicals. Treatment of 2-nitrobromobenzene with CF3SO2Cl in DMF contg. copper at 140.degree. for 1 h gave 2-nitrotrifluoromethylbenzene.
IT **132502-11-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 132502-11-5 CAPLUS
CN 1,1'-Biphenyl, 2,3,4,5,6-pentafluoro-2',6'-dinitro-4'-(trifluoromethyl)- (9CI) (CA INDEX NAME)



IT **7440-50-8**, Copper, uses and miscellaneous
RL: USES (Uses)
(reaction of perfluoroalkyl sulfonyl halide with nitrohalobenzene in presence of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

L11 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

Cu

L11 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:25120 CAPLUS
DOCUMENT NUMBER: 114:25120
TITLE: Synthesis and chelating properties of polyether chelating resins with pendant azobenzene or biphenyl groups
AUTHOR(S): Zhang, Chaocan; Zhuo, Renxi; Luo, Xuangan; Wang, Jun
CORPORATE SOURCE: Dep. Chem., Wuhan Univ., Wuhan, Peop. Rep. China
SOURCE: Lizi Jiaohuan Yu Xifu (1990), 6(1), 36-9
CODEN: LJYXE5
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Four chelating resins were prepd. by treating polyepichlorohyrin (I) with 4-aminoazobenzene, 4-amino-2',3-dimethylazobenzene, 4-amino-4'-chlorobiphenyl (II), or 4-hydroxyazobenzene, resp. The adsorption properties of these resins for Au(III), Pd(II), Pt(IV), Hg(II), Cu(II), and Pb(II) were studied. I-II chelating resin adsorbed only Hg(II) in 1N HCl contg. Au(III), Hg(II), Cu(II), and Mg(II). In 2N HCl I-II chelating resin adsorbed both Hg(II) and Au(III).
IT **7440-50-8**, Copper, properties
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(adsorption of, by polyepichlorohydrin contg. azobenzene or biphenyl pendant groups)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **135-68-2DP**, 4-Amino-4'-chlorobiphenyl, reaction products with polyepichlorohydrin
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and metal adsorption properties of)
RN 135-68-2 CAPLUS
CN [1,1'-Biphenyl]-4-amine, 4'-chloro- (9CI) (CA INDEX NAME)

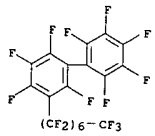
L11 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:477891 CAPLUS
DOCUMENT NUMBER: 113:77891
TITLE: Preparation of (polyfluoroalkyl)polyfluoroarenes
INVENTOR(S): Weigert, Frank J.
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4910351	A	19900320	US 1987-26538	19870316

AB The title compds., useful as intermediates for high temp. solvents, synthetic oxygen carriers, and solder masks, are prepd. by reaction of at least one polyfluoroalkyl compd. CxF2x+1Z (Z = Cl, Br, iodo; x = 1-7) or polyfluoroalkylene compd. Z(CF2)yZ (y = 3-6) with a polyfluoroarom. compd.
ArDB (D = F, Cl, Br, iodo; B = F, Cl, Br, iodo, N, cyano, CnF2n+1; n = 1-10; provided that n + x = 1-3 when the process is vapor phaae; Ar = C6F4, perfluoronaphthyl, -pyridyl, etc.) in the presence of Cu, Zn, Ni, Ag, Sn, Ca, or CuO mixed with Cr2O3. Thus, a glass reactor charged with 5 g of a metal reagent contg. 80% CuO and 20% Cr2O3. The reactor was heated in a tube furnace at 600.degree. and feed streams of C6F6 and CF3I were passed through the reactor at 1 mL/h and 5 mL/h, resp., to give an effluent contg. 72% C6F6 and 16% C6F5CF3.
IT **7440-50-8**, Copper, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for coupling reaction of polyfluoroalkyl or polyfluoroalkylene halides with polyfluoroaroms.)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

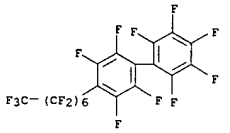
IT **128507-24-4P 128507-25-5P 128507-26-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 128507-24-4 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,6,6'-nonafluoro-5'-(pentadecafluoroheptyl)- (9CI) (CA INDEX NAME)



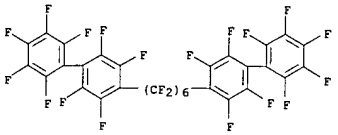
12

L11 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

RN 128507-25-5 CAPLUS
CN 1,1'-Biphenyl,
2,2',3,3',4,5,5',6,6'-nonafluoro-4'-(pentadecafluoroheptyl)-
(9CI) (CA INDEX NAME)



RN 128507-26-6 CAPLUS
CN 1,1'-Biphenyl, 4,4''-(1,1,2,2,3,3,4,4,5,5,6,6-dodecafluoro-1,6-hexanediyl)bis[2,2',3,3',4',5,5',6,6'-nonafluoro- (9CI) (CA INDEX NAME)

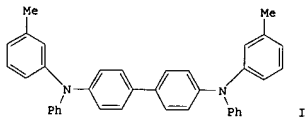


L11 ANSWER 23 OF 39 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:231258 CAPLUS
DOCUMENT NUMBER: 110:231258
TITLE: Process for preparing arylamines
INVENTOR(S): Turner, S. Richard; Yanus, John F.; Renfer, Dale S.
PATENT ASSIGNEE(S): Xerox Corp., USA
SOURCE: U.S., 10 pp. Cont.-in-part of U.S. Ser. No. 215,610, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4764625	A	19880816	US 1984-639032	19840809
CA 1171431	A1	19840724	CA 1981-369668	19810129
JP 56135448	A2	19811022	JP 1981-15557	19810204
JP 58052983	B4	19831126		
JP 59046249	A2	19840315	JP 1983-129283	19830715
JP 01029182	B4	19890608		

PRIORITY APPLN. INFO.: US 1980-118147 19800204
US 1980-215610 19801212
OTHER SOURCE(S): CASREACT 110:231258
GI



AB An improved process for prepg. tertiary amines by condensation of secondary amines with mono- and diiodoarenes, comprises conducting the condensation in presence of KOH, a Cu catalyst, and an inert satd. C13-15 aliph. hydrocarbon mixt. having an initial b.p. of .gtoreq.170.degree., in an inert atm. at 120-190.degree., for a time sufficient to complete the reaction. The use of KOH and the inert hydrocarbon solvent yields a relatively pure product. A mixt. of (4-IC6H4)2, 3-MeC6H4NPh2, KOH flake, Cu powder and Soltrol- 170 was maintained under an inert atm. and heated to 160.degree. for 5 h to give 85% I. Using a different base, different catalyst, or a noninert solvent, resulted in lower yield and extended reaction time.

IT **7440-50-8**, Copper, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for condensation of secondary amines with mono- or diiodoaryl compds.)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

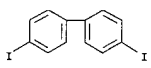
Cu

L11 ANSWER 23 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

IT **120904-76-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 120904-76-9 CAPLUS
CN Benzenamine, 4,4'-(1-methylethylidene)bis[N-phenyl-, polymer with 4,4'-diiodo-1,1'-biphenyl (9CI) (CA INDEX NAME)

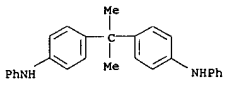
CM 1

CRN 3001-15-8
CMF C12 H8 I2



CM 2

CRN 2980-26-9
CMF C27 H26 N2

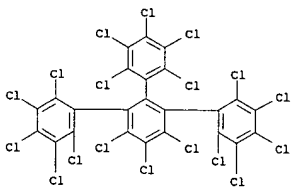


L11 ANSWER 24 OF 39 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1986:186068 CAPLUS
DOCUMENT NUMBER: 104:186068
TITLE: Synthesis and chemical behavior of perchlorophenylacetylene
AUTHOR(S): Ballester, Manuel; Castaner, Juan; Riera, Juan; Tabernero, Ignacio
CORPORATE SOURCE: Inst. Quim. Org. Apl., CSIC, Barcelona, 08034, Spain
SOURCE: J. Org. Chem. (1986), 51(9), 1413-19
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 104:186068

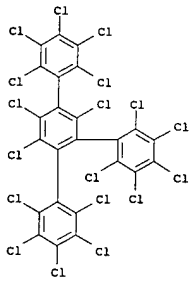
AB C6Cl5C.tplbond.CCl (I) was prepd. from perchlorostyrene by vicinal reductive dechlorination to C6Cl5C.tplbond.CH, conversion of the latter into its silver acetylide, and chlorination to I. Some thermal and photochem. reactions of I are reported, including addn. reactions with cyclohexane, H2O, HCl, Cl2, Cl2C:CCl2, and Cl2C:CHCl. Highly chlorinated products prepd. include: .alpha.-H-hexachloro-.beta.-(cyclohexyl)styrene, isomeric cis- and trans-C6Cl5CCl:CHCl, C6Cl5COCH2Cl, perchloro-1-phenylcyclobutene, perchlorophenylmaleic acid, and a perchlorodiphenylbicyclo[4.2.0]octa-2,4,7-triene.

IT **70994-48-8P 71140-77-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 70994-48-8 CAPLUS
CN 1,1':2',1''-Terphenyl, 2,2'',3,3',3'',4,4',4'',5,5',5'',6,6''-tridecachloro-6'-(pentachlorophenyl)- (9CI) (CA INDEX NAME)



RN 71140-77-7 CAPLUS
CN 1,1':2',1''-Terphenyl, 2,2'',3,3',3'',4,4',4'',5,5'',6,6',6''-tridecachloro-5'-(pentachlorophenyl)- (9CI) (CA INDEX NAME)

L11 ANSWER 24 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



9

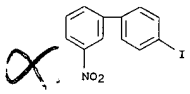
IT **7440-50-8**, uses and miscellaneous
RL: USES (Uses)
(thermal isomerization of perchlorophenylcyclobutene in presence of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L11 ANSWER 25 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:166438 CAPLUS
DOCUMENT NUMBER: 102:166438
TITLE: Studies of polyphenyls and polyphenylenes. XIII. Syntheses and physical properties of several polyphenylenes containing mixed linkages
AUTHOR(S): Fujioka, Yasuhiro
CORPORATE SOURCE: Kyoto Pharm. Univ., Kyoto, 607, Japan
SOURCE: Bull. Chem. Soc. Jpn. (1984), 57(12), 3494-506
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fourteen macrocyclic polyphenylenes contg. 5-12 phenylene rings, including the 10 new compds., were synthesized by intra- or intermol. homo or cross-coupling of di-Grignard compds., using CuCl2. 1H NMR spectra of the polyphenylenes, compared with those of open-chain analogs, provided information on the nonplanar conformations. UV spectra of compds. contg p-phenylene ring(s) indicated that both the intensity of the K-band above .apprx.260 nm and a marked shift of that band provides conformational information. EHMO calcns. of longest-wavelength absorption bands of 12 polyphenylenes supported conformations deduced from spectral data and Dreiding stereomodels. The lack of intense band(s) near 700 cm-1 in the IR spectra indicated the macrocyclic structure contained no m-phenylene ring. The mass spectra were also discussed.
IT **7440-50-8**, uses and miscellaneous
RL: USES (Uses)
(coupling of halogenated aroms. in presence of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

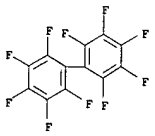
Cu

IT **2499-78-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 2499-78-7 CAPLUS
CN 1,1'-Biphenyl, 4'-iodo-3-nitro- (9CI) (CA INDEX NAME)



X

L11 ANSWER 26 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1985:24755 CAPLUS
DOCUMENT NUMBER: 102:24755
TITLE: Direct formation of organocopper compounds by oxidative addition of zerovalent copper to organic halides
AUTHOR(S): Ebert, Greg; Rieke, Reuben D.
CORPORATE SOURCE: Dep. Chem., Univ. Nebraska, Lincoln, NE, 68588-0304, USA
SOURCE: J. Org. Chem. (1984), 49(26), 5280-2
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 102:24755
AB Treating Et3PCuI, CuCl, or Me2SCuCl with 1 equiv Li naphthalide gave an activated Cu(0) species. Treating RBr (R = allyl, PhCH2, 2-NCC6H4, PhC.tplbond.C) or R1I (R1 = C6F5, 2-O2NC6H4, heptyl) with the activated Cu gave 30-99% homocoupling products RR or R1R1, whereas quenching with H2O gave RH or R1H. Cross-coupling of R2Cu (R2 = Ph, C6F5, 2-NCC6H4) with R3X (R3 = Bz, Ac, X = Cl; R3 = allyl, PhCH2, X = Br) gave 20-95% R2R3.
IT **434-90-2P**
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, by coupling, activated copper for)
RN 434-90-2 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,5',6,6'-decafluoro- (9CI) (CA INDEX NAME)



X

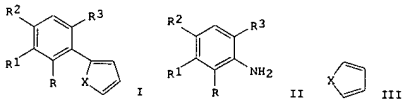
IT **7440-50-8P**, reactions
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reactions of activated, with org. halides)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

L11 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:156351 CAPLUS
DOCUMENT NUMBER: 100:156351
TITLE: Copper-catalyzed biaromatic coupling
INVENTOR(S): Plummer, Ernest L.; Seelye, David E.
PATENT ASSIGNEE(S): FMC Corp. , USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4423234	A	19831227	US 1982-378539	19820517

GI



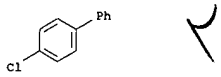
I II III

AB A biarom. compd. [I; R = H, halo, lower alkyl; R1 = H (unless R is lower alkyl), halo; R2, R3 are independently H, halo; X = CH:CH, NH, CH:N, O, S] was prepd. by treating the corresponding aniline deriv. II with a lower alkyl nitrite in III (X as above) solvent in the presence of Cu metal. During a 30 min period a soln. of 3-chloro-2-methylaniline in thiophene was added dropwise to a stirred mixt. of tert-Bu nitrite and Cu powder. After complete addn., the mixt. was heated at 60.degree. for 2 h, then at reflux for .apprx.18 h to give I (R = Me, R1 = Cl, R2 = R3 = H; X = S] in 62.2% yield.
IT **7440-50-8**, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for heteroarylation of chloro(methyl)benzenediazonium salt with thiophene)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

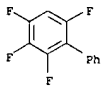
Cu

IT **2051-62-9P 2357-14-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 2051-62-9 CAPLUS
CN 1,1'-Biphenyl, 4-chloro- (9CI) (CA INDEX NAME)

L11 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



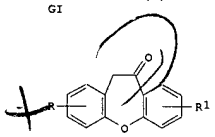
RN 2357-14-4 CAPLUS
CN 1,1'-Biphenyl, 2,3,4,6-tetrafluoro- (9CI) (CA INDEX NAME)



L11 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:539807 CAPLUS
DOCUMENT NUMBER: 99:139807
TITLE: Dibenzoxepinones
INVENTOR(S): Ehlers, Eberhard; Muth, Karl
PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3203065	A1	19830804	DE 1982-3203065	19820130
ES 519344	A1	19831101	ES 1983-519344	19830128
CA 1176265	A1	19841016	CA 1983-420425	19830128

PRIORITY APPLN. INFO.: DE 1982-3203065 19820130
OTHER SOURCE(S): CASREACT 99:139807
GI



I

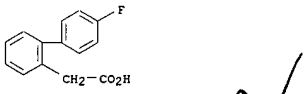
AB Title compds. I [R, R1 = H, alkyl, alkoxy, R2S(O)n, amino, nitro; R2 = alkyl; n = 0-2] were prepd. by phenoxylation of 2-ClRC6H3CH2CO2H with R1C6H4OH using a Cu catalyst followed by cyclization. Thus, 34.1 g 2-ClC6H4CH2CO2H was condensed with 22.4 g 4-FC6H4OH in the presence of CuO to give 46.55 g 2-(4-FC6H4O)C6H4CH2OH. This (24.6 g) was cyclized with AlCl3 to give 21.8 g I (R = H, R1 = 8-F). I are intermediates in the prepn. of pharmaceuticals.

IT **7440-50-8**, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for phenoxylation of chlorobenzeneacetates)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **87293-37-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization of)
RN 87293-37-6 CAPLUS
CN [1,1'-Biphenyl]-2-acetic acid, 4'-fluoro- (9CI) (CA INDEX NAME)

L11 ANSWER 28 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



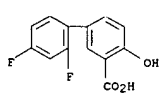
L11 ANSWER 29 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:223098 CAPLUS
DOCUMENT NUMBER: 96:223098
TITLE: Lipophilic copper(II) formulations: some correlations between their composition and antiinflammatory/antiarthritic activity when applied to the skin of rats
AUTHOR(S): Beveridge, S. J.; Whitehouse, M. W.; Walker, W. R.
CORPORATE SOURCE: Fac. Med., Univ. Newcastle, Newcastle, 2308, Australia
SOURCE: Agents Actions (1982), 12(1-2), 225-31
CODEN: AGACBH; ISSN: 0065-4299
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Copper complexes of phenols related to salicylic acid were prepd. in DMSO [67-68-5] and applied to the shaved dorsal skin of rats. The following activities were assayed: suppression of the carrageenan or hydroxylapatite paw edemas; decrease of chronic inflammation in established adjuvant arthritis; local skin toxicity. Cu(II) was an essential component. Some limited structure-activity correlations were made among alternative cupriphores. DMSO solns. of Cu complexes were more potent than their solns. in ethanol [64-17-5]. glycerol [56-81-5] Was a beneficial additive. Decreasing the acidity of some Cu salicylate formulations also decreased their potency. Niflumic acid and phenylbutazone were effective nonsalicylate transcutaneous cupriphores.

IT **7440-50-8DP**, complexes with phenols **22494-42-4DP**, copper complexes
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiinflammatory-antiarthritic activity after application to skin)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

RN 22494-42-4 CAPLUS
CN [1,1'-Biphenyl]-3-carboxylic acid, 2',4'-difluoro-4-hydroxy- (9CI) (CA INDEX NAME)

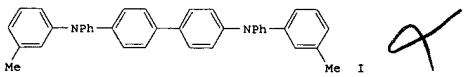


L11 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1982:19802 CAPLUS
DOCUMENT NUMBER: 96:19802
TITLE: Arylamines
INVENTOR(S): Turner, Richard S.; Renfer, Dale S.; Yanus, John F.
PATENT ASSIGNEE(S): Xerox Corp. , USA
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 34425	A2	19810826	EP 1981-300388	19810130
EP 34425	A3	19820505		
EP 34425	B1	19840516		
R: DE, FR, GB, NL				
CA 1171431	A1	19840724	CA 1981-369668	19810129
JP 56135448	A2	19811022	JP 1981-15557	19810204
JP 58052983	B4	19831126		
JP 59046249	A2	19840315	JP 1983-129283	19830715
JP 01029182	B4	19890608		

PRIORITY APPLN. INFO.: US 1980-118147 19800204
US 1980-215610 19801212

GI



I

AB Chromatic tertiary amines were prepd. by condensing mono- or disecondary amines and diiodoaryl aryl compds. in the presence of KOH and Cu at 120.degree.-190.degree.. Thus, 4-IC6H4C6H4I-4 was treated with 3-MeC6H4NHPh in the presence of KOH and Cu at 160.degree. for 5 h to give 85% I.

IT **7440-50-8**, reactions
RL: RCT (Reactant)
(condensation of amines with iodoaryl compds. in the presence of potassium hydroxide and)

RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

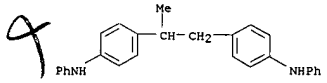
IT **80237-34-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 80237-34-9 CAPLUS
CN Benzenamine, 4,4'-(1-methyl-1,2-ethanediyl)bis[N-phenyl-, polymer with 4,4'-diiodo-1,1'-biphenyl (9CI) (CA INDEX NAME)

CM 1

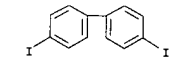
L11 ANSWER 30 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

CRN 80223-30-9
CMF C27 H26 N2



CM 2

CRN 3001-15-8
CMF C12 H8 I2

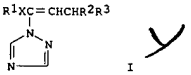


L11 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1981:139814 CAPLUS
DOCUMENT NUMBER: 94:139814
TITLE: Vinyltriazoles
PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.
SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55111477	A2	19800828	JP 1980-16098	19800214
JP 63061943	B4	19881130		
DE 2906061	A1	19810108	DE 1979-2906061	19790216
DE 2938422	A1	19810423	DE 1979-2938422	19790922
EP 15387	A2	19800917	EP 1980-100531	19800204
EP 15387	A3	19801015		
EP 15387	B1	19830112		
R: AT, BE, CH, DE, FR, GB, IT, NL, SE				
AT 2216	E	19830115	AT 1980-100531	19800204
FI 8000430	A	19800817	FI 1980-430	19800213
FI 67377	B	19841130		
FI 67377	C	19850311		
AU 8055513	A1	19800821	AU 1980-55513	19800213
AU 532737	B2	19831013		
CS 212338	P	19820326	CS 1980-979	19800213
CS 212339	P	19820326	CS 1980-7661	19800213
IL 59379	A1	19840731	IL 1980-59379	19800213
DD 149009	C	19810624	DD 1980-219061	19800214
CA 1142529	A1	19830308	CA 1980-345638	19800214
DK 8000678	A	19800817	DK 1980-678	19800215
DK 162891	B	19911223		
DK 162891	C	19920511		
ES 488643	A1	19800916	ES 1980-488643	19800215
BR 8000996	A	19801029	BR 1980-996	19800215
ZA 8000864	A	19810325	ZA 1980-864	19800215
PL 124651	B1	19830228	PL 1980-222047	19800215
HU 26089	O	19830928	HU 1980-348	19800215
HU 187270	B	19851228		
PL 127018	B1	19830930	PL 1980-232569	19800215
PL 128396	B1	19840131	PL 1980-238887	19800215
RO 79266	P	19820625	RO 1980-100207	19800216

PRIORITY APPLN. INFO.: DE 1979-2906061 19790216
DE 1979-2938422 19790922
EP 1980-100531 19800204

GI



I

AB Vinyltriazoles I (R1 = Me3C, 2,4-Cl2C6H3, 4-PhC6H4, FCH2CMe2, ClCH2CMe2, 4-FC6H4, 4-ClC6H4; X = CO, CHOH, CHOMe, CHO2CNHMe; CR2R3 =

L11 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
cyclohexylidene, R2 = Me, R3 = Me, Ph, Et) were prepd. by condensation of an aldehyde with a pinacolonyltriazine, followed by redn. and addnl. substitution reactions as necessary. Thus, base-catalyzed condensation of pinacolonyltriazine with cyclohexanecarboxaldehyde followed by treatment with naphthalene-1,5-disulfonic acid gave 49% I (R1 = Me3C, X = CO, CR2R3 = cyclohexylidene). I are effective fungicides for Colletotrichum coffeanum, Pythium ultimum, etc.

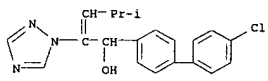
IT **7440-50-8DP**, hydroxy(triazolyl)pentene complexes
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and fungicidal activities of)

RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

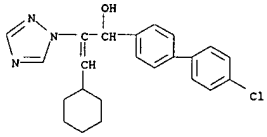
Cu

IT **76608-90-7P 76608-94-1P 76608-95-2P**
76609-03-5P 76609-04-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 76608-90-7 CAPLUS
CN 1H-1,2,4-Triazole-1-ethanol, .alpha.-(4'-chloro[1,1'-biphenyl]-4-yl)-.beta.-(2-methylpropylidene)- (9CI) (CA INDEX NAME)

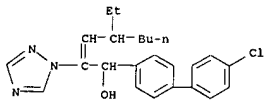


RN 76608-94-1 CAPLUS
CN 1H-1,2,4-Triazole-1-ethanol, .alpha.-(4'-chloro[1,1'-biphenyl]-4-yl)-.beta.-(cyclohexylmethylene)- (9CI) (CA INDEX NAME)

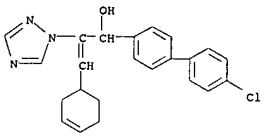


RN 76608-95-2 CAPLUS
CN 1H-1,2,4-Triazole-1-ethanol, .alpha.-(4'-chloro[1,1'-biphenyl]-4-yl)-.beta.-(2-ethylhexylidene)- (9CI) (CA INDEX NAME)

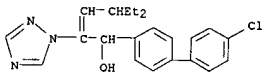
L11 ANSWER 31 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 76609-03-5 CAPLUS
CN 1H-1,2,4-Triazole-1-ethanol, .alpha.-(4'-chloro[1,1'-biphenyl]-4-yl)-.beta.-(3-cyclohexen-1-ylmethylene)- (9CI) (CA INDEX NAME)



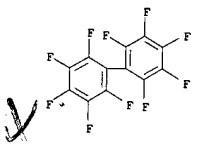
RN 76609-04-6 CAPLUS
CN 1H-1,2,4-Triazole-1-ethanol, .alpha.-(4'-chloro[1,1'-biphenyl]-4-yl)-.beta.-(2-ethylbutylidene)- (9CI) (CA INDEX NAME)



L11 ANSWER 32 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:540944 CAPLUS
DOCUMENT NUMBER: 91:140944
TITLE: Preparation of highly reactive metal powders. Activated copper and uranium. The Ullmann coupling and preparation of organometallic species
AUTHOR(S): Rieke, Reuben D.; Rhyne, Lee D.
CORPORATE SOURCE: Dep. Chem., Univ. Nebraska, Lincoln, NE, 68588, USA
SOURCE: J. Org. Chem. (1979), 44(19), 3445-6
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Redn. of CuI with K yields highly reactive Cu powder, useful for the Ullmann biaryl synthesis under very mild conditions. Cross coupling of pentafluorophenyl iodide and allyl bromide was also effected under mild conditions. Redn. of UCl4 with Na-K alloy gave an extremely reactive form of U metal whose reaction with cyclooctatetraene gave >35% uranocene. Reaction with benzophenone gave 50% tetraphenylethylene.
IT **7440-50-8**, reactions
RL: RCT (Reactant)
(activated, reaction of, with pentafluorophenyl iodide)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **434-90-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 434-90-2 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,5',6,6'-decafluoro- (9CI) (CA INDEX NAME)



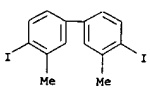
L11 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1979:138250 CAPLUS
DOCUMENT NUMBER: 90:138250
TITLE: Poly(dimethyl biphenylene)
AUTHOR(S): Krigbaum, W. R.; Krause, Kenneth J.
CORPORATE SOURCE: Gross Chem. Lab., Duke Univ., Durham, N. C., USA
SOURCE: J. Polym. Sci., Polym. Chem. Ed. (1978), 16(12), 3151-6
CODEN: JPLCAT; ISSN: 0449-296X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Poly(dimethylbiphenylene) [69571-59-1] samples prepd. by 2 different methods were of low mol. wt. and showed no evidence of the nematic phase when investigated by polarized light microscopy of their CHCl3 solns. over the concn. range 6.8-25%. The Ullmann reaction was used to condense 4,4'-diiodo-3,3'-dimethylbiphenyl [7583-27-9] and the corresponding 2,2'-dimethyl deriv. [69571-02-4] with copper. 4,4'-Dibromo-2,2'-dimethylbiphenyl [31458-17-0] was polymd. using the coupling reagent bis(1,5-cyclooctadiene)nickel(0) [1295-35-8]. The Ullmann polymers were completely sol. in CHCl3 but only partially sol. in toluene.
IT **7440-50-8**, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymn. of dihalodimethylbiphenyls)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **69571-59-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)
RN 69571-59-1 CAPLUS
CN 1,1'-Biphenyl, 4,4'-diiodo-3,3'-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

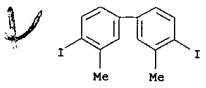
CM 1

CRN 7583-27-9
CMF C14 H12 I2

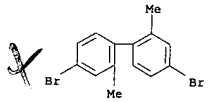


IT **7583-27-9P 31458-17-0P 69571-02-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and polymn. of)
RN 7583-27-9 CAPLUS
CN 1,1'-Biphenyl, 4,4'-diiodo-3,3'-dimethyl- (9CI) (CA INDEX NAME)

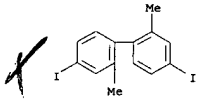
L11 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 31458-17-0 CAPLUS
CN 1,1'-Biphenyl, 4,4'-dibromo-2,2'-dimethyl- (9CI) (CA INDEX NAME)



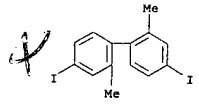
RN 69571-02-4 CAPLUS
CN 1,1'-Biphenyl, 4,4'-diiodo-2,2'-dimethyl- (9CI) (CA INDEX NAME)



IT **69571-66-0P 69571-67-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and properties of)
RN 69571-66-0 CAPLUS
CN 1,1'-Biphenyl, 4,4'-diiodo-2,2'-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 69571-02-4
CMF C14 H12 I2

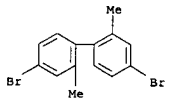


RN 69571-67-1 CAPLUS
CN 1,1'-Biphenyl, 4,4'-dibromo-2,2'-dimethyl-, homopolymer (9CI) (CA INDEX NAME)

L11 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

CM 1

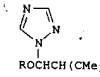
CRN 31458-17-0
CMF C14 H12 Br2



L11 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:568036 CAPLUS
DOCUMENT NUMBER: 87:168036
TITLE: Fungicidal acylated triazoles
INVENTOR(S): Kraemer, Wolfgang; Buechel, Karl Heinz; Brandes, Wilhelm; Frohberger, Paul Ernst
PATENT ASSIGNEE(S): Bayer A.-G., Ger.
SOURCE: Ger. Offen., 57 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2600799	A1	19770714	DE 1976-2600799	19760110
US 4145428	A	19790320	US 1976-753651	19761221
SE 7700065	A	19770711	SE 1977-65	19770104
AU 502450	B2	19790726	AU 1977-21094	19770106
AU 7721094	A1	19780713		
HU 19196	O	19801227	HU 1977-BA3494	19770106
HU 176915	P	19810628		
CH 629078	A	19820415	CH 1977-145	19770106
FI 7700045	A	19770711	FI 1977-45	19770107
FI 61699	B	19820531		
FI 61699	C	19820910		
DK 7700058	A	19770711	DK 1977-58	19770107
NL 7700143	A	19770712	NL 1977-143	19770107
BR 7700076	A	19770906	BR 1977-76	19770107
PL 101196	P	19781230	PL 1977-195196	19770107
CS 195322	P	19800131	CS 1977-119	19770107
IL 51230	A1	19800229	IL 1977-51230	19770107
CA 1077943	A1	19800520	CA 1977-269296	19770107
BE 850239	A1	19770711	BE 1977-173963	19770110
JP 52087170	A2	19770720	JP 1977-885	19770110
JP 62024425	B4	19870528		
FR 2337719	A1	19770805	FR 1977-510	19770110
FR 2337719	B1	19820709		
AT 351863	B	19790827	AT 1977-78	19770110
AT 7700078	A	19790115		

PRIORITY APPLN. INFO.: DE 1976-2600799 19760110
GI



ROCHCH(CMe3)OR1 I

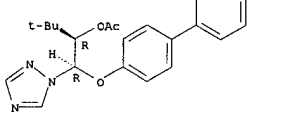
AB Title compds. I (R = p-ClC6H4, 2,4,5-Cl3C6H2, p-PhC6H4, p-BrC6H4, 3,4-Me2C6H3, etc.; R1 = R2CO, R2 = Me, Pr, Et, CMe3, p-ClC6H4NH, MeNH, Me2CHCH2, ClCH2, PhOCH2) were prepd. by esterification of I (R1 = H) with AcCl, Ac2O, RCO (R = MeNH, p-ClC6H4NH), etc. Extensive data were given for the effectiveness of I against fungi, including Uromyces and Podosphaera.

L11 ANSWER 34 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)
IT **7440-50-8DP**, complexes with phenoxy(acyloxy)alkyltriazoles **64452-47-7P 64452-73-9P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and fungicidal activity of)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

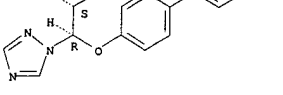
RN 64452-47-7 CAPLUS
CN 1H-1,2,4-Triazole-1-ethanol, .beta.-[(4'-chloro[1,1'-biphenyl]-4-yl)oxy]-.alpha.-(1,1-dimethylethyl)-, acetate (ester), (R*,R*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 64452-73-9 CAPLUS
CN 1H-1,2,4-Triazole-1-ethanol, .beta.-[(4'-chloro[1,1'-biphenyl]-4-yl)oxy]-.alpha.-(1,1-dimethylethyl)-, acetate (ester), (R*,S*)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L11 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:542805 CAPLUS
DOCUMENT NUMBER: 85:142805
TITLE: Phenoxybiphenyl and phenoxyterphenyl compounds and compositions
INVENTOR(S): Hammann, William C.; Schisla, Robert M.
PATENT ASSIGNEE(S): Monsanto Co., USA
SOURCE: U.S., 8 pp. Division of U.S. 3,860,661.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

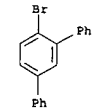
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3957666	A	19760518	US 1974-474484	19740530
US 3406207	A	19681015	US 1963-310457	19630920
US 3860661	A	19750114	US 1972-247528	19720426

PRIORITY APPLN. INFO.: US 1963-310457 A3 19630920
US 1968-801875 A2 19680819
US 1969-845079 A2 19690725
US 1972-247528 A3 19720426

AB Ten phenoxybiphenyls or -terphenyls with 5-10 benzene rings and from 2-8 O
ether linkages with at least 40% of the total linkages in the meta position, useful as functional fluids, esp. as hydraulic and heat transfer
fluids, were prepd. Thus, PhOK was treated with 3-chloro-3'-(m-phenoxyphenoxy)biphenyl at 240.degree. for 18 hr in the presence of Cu + CuCl as catalyst to give 3-phenoxy-3'-(m-phenoxyphenoxy)biphenyl, which was thermally stable .ltoreq.799.degree.F and had a viscosity of 18.9 cs at 210.degree.F and 2.3 cs at 400.degree.F. Other title biphenyls and terphenyls were similarly prepd.
IT **7440-50-8**, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for reaction of halopolyphenyls with potassium phenolates)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **60631-83-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, with potassium (phenoxyphenoxy)phenolate)
RN 60631-83-6 CAPLUS
CN 1,1':3',1''-Terphenyl, 4'-bromo- (9CI) (CA INDEX NAME)

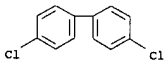


L11 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

L11 ANSWER 36 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1976:462770 CAPLUS
DOCUMENT NUMBER: 85:62770
TITLE: Organomercury compounds as synthetic intermediates. Coupling of arylmercuric salts
AUTHOR(S): Kretchmer, Richard A.; Glowinski, R.
CORPORATE SOURCE: Dep. Chem., Illinois Inst. Technol., Chicago, Ill., USA
SOURCE: J. Org. Chem. (1976), 41(15), 2661-2
CODEN: JOCEAH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Arylmercuric salts were converted to biaryls by treatment with Cu and a catalytic amt. of PdCl2 in pyridine at 115.degree.. Thus, a mixt. of 4-ClC6H4HgOAc, Cu, and PdCl2 in pyridine was refluxed 5 hr under N to give 62% 4,4'-dichlorobiphenyl. Similarly prepd. were biphenyl and its methoxy, amino, and acetamido derivs., 2,2'-bifuran, 2,2'-bithiophene, and 1,1'-binaphthalene.
IT **7440-50-8**, reactions
RL: RCT (Reactant)
(coupling of arylmercuric salts by)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

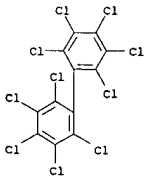
IT **2050-68-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 2050-68-2 CAPLUS
CN 1,1'-Biphenyl, 4,4'-dichloro- (9CI) (CA INDEX NAME)



L11 ANSWER 37 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1973:147460 CAPLUS
DOCUMENT NUMBER: 78:147460
TITLE: Synthesis of trifluorovinylpolyhaloaryl compounds via polyhaloarylcopper complexes
AUTHOR(S): Soloski, E. J.; Ward, W. E.; Tamborski, C.
CORPORATE SOURCE: Air Force Mater. Lab., Wright-Patterson Air Force Base, Ohio, USA
SOURCE: J. Fluorine Chem. (1973), 2(4), 361-71
CODEN: JFLCAR
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polyhaloarylcopper complexes (ArCu; Ar = C6F5, p-HC6F4, p-Br C6F4, C5NF4, C5NC14 and C6Cl5) were prepd. and treated with F2C:CFI to yield F2C:CFAr.
The copper coupling reaction between C6F5I and F2C:CFI also gave F2C:CFAr.
IT **7440-50-8**, reactions
RL: RCT (Reactant)
(coupling, of iodotrifluoroethylene)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **2051-24-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 2051-24-3 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,5',6,6'-decachloro- (9CI) (CA INDEX NAME)



L11 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1973:30001 CAPLUS
DOCUMENT NUMBER: 78:30001
TITLE: Fluoroorganocopper compounds, complexes, and their solutions for copper-coating substrates
INVENTOR(S): Cairncross, Allan; Sheppart, William Arthur
PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co.
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

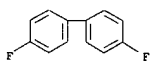
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3700693	A	19721024	US 1970-102569	19701202
US 3817784	A	19740618	US 1972-251655	19720509

PRIORITY APPLN. INFO.: US 1966-557605 19660615
US 1968-725541 19680430
US 1970-102569 19701202

AB Fluorophenylcopper compds., e.g., FnC6H5-nCu (n = 1-5) were prepd. by reaction of a fluorophenylmagnesium bromide with Cu2Br2. The compds. were used to prep. finely divided Cu metal and for copper-coating various substrates. m-F3CC6H4Cu was used to coat acrylic fibers with Cu to give the fiber antistatic properties.
IT **7440-50-8**, uses and miscellaneous
RL: USES (Uses)
(coating with, on acrylic fibers for elec. charge prevention)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

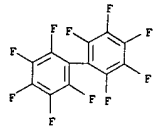
Cu

IT **398-23-2P 434-90-2P 1091-59-4P**
39760-28-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 398-23-2 CAPLUS
CN 1,1'-Biphenyl, 4,4'-difluoro- (9CI) (CA INDEX NAME)

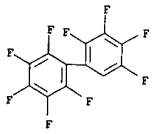


RN 434-90-2 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,5',6,6'-decafluoro- (9CI) (CA INDEX NAME)

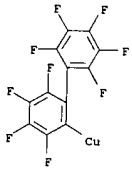
L11 ANSWER 38 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 1091-59-4 CAPLUS
CN 1,1'-Biphenyl, 2,2',3,3',4,4',5,5',6-nonafluoro- (9CI) (CA INDEX NAME)



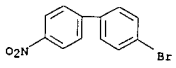
RN 39760-28-6 CAPLUS
CN Copper, (2',3,3',4,4',5,5',6,6'-nonafluoro[1,1'-biphenyl]-2-yl)- (9CI) (CA INDEX NAME)



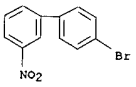
L11 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1972:551576 CAPLUS
DOCUMENT NUMBER: 77:151576
TITLE: Novel redox reactions of diazonium fluoroborates. Formation of copper salt-azo compound complexes: water-induced free radical aromatic arylation
AUTHOR(S): Cadogan, J. I. G.; Hibbert, P. G.; Siddiqui, M. N. U.; Smith, D. M.
CORPORATE SOURCE: Dep. Chem., Univ. Edinb., Edinburgh, Scot.
SOURCE: J. Chem. Soc., Perkin Trans. 1 (1972), (20), 2555-62
CODEN: JCPRB4
DOCUMENT TYPE: Journal
LANGUAGE: English
AB ArN2BF4 (I; Ar = o-MeC6H4 or p-RC6H4, R = H, Br, Cl, Me, or NO2) in C6H6 with Cu powder (1 equiv.) and Me2CO (10% vol.) gave ppts. of red complexes of the azo compds. (ArN:NAr) with ionic Cu; free azo compds. and biaryls, ArPh (<10%) were also isolated. The Cu complexes decompd. in H2O or polar solvents to azo compds. The reaction of I in the presence of 2 mol. equiv. of H2O, either free or bound in hydrated salts, e.g. MgSO4.H2O, gave 20-50% of biaryls (arPh), by a free radical path. The stoichiometry of the reactions was detd. and mechanisms involving series of one-electron, redox reactions of the Waters type proposed. P-Cl-C6H4N2PF6 reacted similarly.
IT **7440-50-8**, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for decompn. of diazonium fluoroborates)
RN 7440-50-8 CAPLUS
CN Copper (7CI, 8CI, 9CI) (CA INDEX NAME)

Cu

IT **6242-98-4P 32858-99-4P 35450-34-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 6242-98-4 CAPLUS
CN 1,1'-Biphenyl, 4-bromo-4'-nitro- (9CI) (CA INDEX NAME)

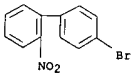


RN 32858-99-4 CAPLUS
CN 1,1'-Biphenyl, 4'-bromo-3-nitro- (9CI) (CA INDEX NAME)



L11 ANSWER 39 OF 39 CAPLUS COPYRIGHT 2002 ACS (Continued)

RN 35450-34-1 CAPLUS
CN 1,1'-Biphenyl, 4'-bromo-2-nitro- (9CI) (CA INDEX NAME)



=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	173.55	333.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-24.16	-24.16

STN INTERNATIONAL LOGOFF AT 16:44:24 ON 03 MAY 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1621sxa

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Jan 25	BLAST(R) searching in REGISTRY available in STN on the Web
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NEWS 15	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 16	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 17	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 18	Apr 22	Federal Research in Progress (FEDRIP) now available

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,

CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:07:16 ON 08 MAY 2002

=> fil reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.04	5.04

FILE 'REGISTRY' ENTERED AT 09:21:30 ON 08 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 6 MAY 2002 HIGHEST RN 412003-61-3
DICTIONARY FILE UPDATES: 6 MAY 2002 HIGHEST RN 412003-61-3

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

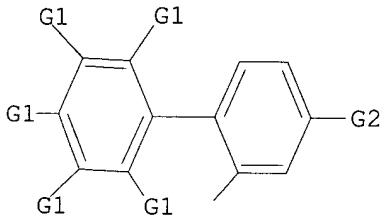
=>
Uploading C:\Program Files\Stnexp\Queries\sample.str

L1 STRUCTURE UPLOADED

=> que L1

L2 QUE L1

=> d
L2 HAS NO ANSWERS
L1 STR



G1 Cl,F,H,Me,CN,NO2

G2 CN,Cl,Br,F,I

Structure attributes must be viewed using STN Express query preparation.
L2 QUE L1

=> q
Q IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> fil reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.52	6.56

FILE 'REGISTRY' ENTERED AT 09:23:52 ON 08 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 6 MAY 2002 HIGHEST RN 412003-61-3
DICTIONARY FILE UPDATES: 6 MAY 2002 HIGHEST RN 412003-61-3

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

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Crossover limits have been increased. See HELP CROSSOVER for details.

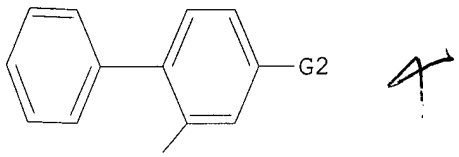
Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> q
Q IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=>
Uploading sample.str

L3 STRUCTURE UPLOADED

=> d
L3 HAS NO ANSWERS
L3 STR



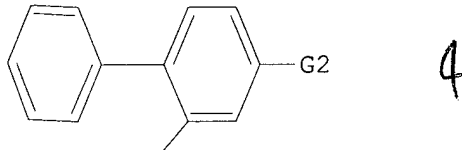
G1 Cl,F,H,Me,CN,NO2
G2 CN,Cl,Br,F,I

Structure attributes must be viewed using STN Express query preparation.

=>
Uploading sample.str

L4 STRUCTURE UPLOADED

=> d
L4 HAS NO ANSWERS
L4 STR



G1
G2 CN,Cl,Br,F,I

Structure attributes must be viewed using STN Express query preparation.

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1621sxa

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

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NEWS 18	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 19	Jun 03	New e-mail delivery for search results now available
NEWS 20	Jun 10	MEDLINE Reload
NEWS 21	Jun 10	PCTFULL has been reloaded

NEWS EXPRESS	February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
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NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
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FILE 'HOME' ENTERED AT 10:34:58 ON 11 JUN 2002

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 9 JUN 2002 HIGHEST RN 427875-85-2
DICTIONARY FILE UPDATES: 9 JUN 2002 HIGHEST RN 427875-85-2

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

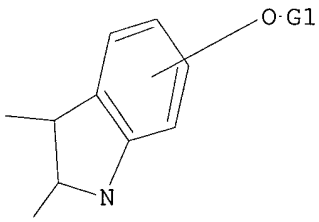
Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
Uploading 10054462.str

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



G1 H,Me

Structure attributes must be viewed using STN Express query preparation.

=> s l1 ful
FULL SEARCH INITIATED 10:35:32 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 160041 TO ITERATE

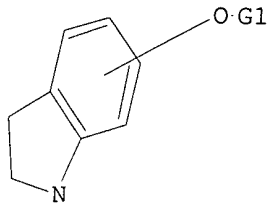
100.0% PROCESSED 160041 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.02

L2 0 SEA SSS FUL L1

=>
Uploading 10054462.str

L3 STRUCTURE UPLOADED

=> d
L3 HAS NO ANSWERS
L3 STR



G1 H,Me

Structure attributes must be viewed using STN Express query preparation.

```
=> s l3 ful
FULL SEARCH INITIATED 10:36:06 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - >1,000,000 TO ITERATE
<------User Break------>
u
<  26.8% PROCESSED  267601 ITERATIONS                          1745 ANSWERS
SEARCH ENDED BY USER
SEARCH TIME: 00.00.07

FULL FILE PROJECTIONS:  ONLINE  **INCOMPLETE**
                        BATCH   **INCOMPLETE**
PROJECTED ITERATIONS:      EXCEEDS 1000000
PROJECTED ANSWERS:         EXCEEDS   10715

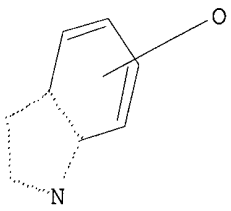
L4         1745 SEA SSS FUL L3

=> s 3/nr
L5     3780047 3/NR

=>
Uploading 10054462.str

L6      STRUCTURE UPLOADED

=> d
L6 HAS NO ANSWERS
L6              STR
```



G1 H,Me

Structure attributes must be viewed using STN Express query preparation.

```
=> s l6 subset=l5 ful
```

FULL SUBSET SEARCH INITIATED 10:37:50 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED - 383699 TO ITERATE

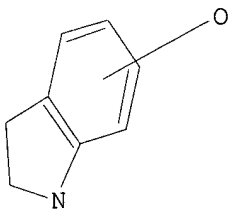
100.0% PROCESSED 383699 ITERATIONS 21031 ANSWERS
SEARCH TIME: 00.00.05

L7 21031 SEA SUB=L5 SSS FUL L6

=>
Uploading 10054462.str

L8 STRUCTURE UPLOADED

=> d
L8 HAS NO ANSWERS
L8 STR



G1 H,Me

Structure attributes must be viewed using STN Express query preparation.

=> d his

(FILE 'HOME' ENTERED AT 10:34:58 ON 11 JUN 2002)

FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
L1 STRUCTURE UPLOADED
L2 0 S L1 FUL
L3 STRUCTURE UPLOADED
L4 1745 S L3 FUL
L5 3780047 S 3/NR
L6 STRUCTURE UPLOADED
L7 21031 S L6 FUL SUB=L5
L8 STRUCTURE UPLOADED

=> s l8 subset=l7 ful
FULL SUBSET SEARCH INITIATED 10:39:15 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED - 21031 TO ITERATE

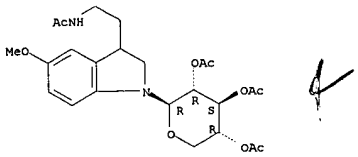
100.0% PROCESSED 21031 ITERATIONS 5379 ANSWERS
SEARCH TIME: 00.00.01

L9 5379 SEA SUB=L7 SSS FUL L8

=> d 1-5

L9 ANSWER 1 OF 5379 REGISTRY COPYRIGHT 2002 ACS
RN 425376-23-4 REGISTRY
CN Acetamide, N-[2-[2,3-dihydro-5-methoxy-1-(2,3,4-tri-O-acetyl-.beta.-D-xylopyranosyl)-1H-indol-3-yl]ethyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C24 H32 N2 O9
SR CA
LC STN Files: CA, CAPLUS

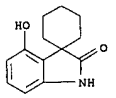
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

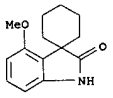
L9 ANSWER 2 OF 5379 REGISTRY COPYRIGHT 2002 ACS
RN 424792-56-3 REGISTRY
CN INDEX NAME NOT YET ASSIGNED
FS 3D CONCORD
MF C13 H15 N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

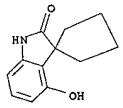
L9 ANSWER 3 OF 5379 REGISTRY COPYRIGHT 2002 ACS
RN 424792-55-2 REGISTRY
CN INDEX NAME NOT YET ASSIGNED
FS 3D CONCORD
MF C14 H17 N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

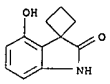
L9 ANSWER 4 OF 5379 REGISTRY COPYRIGHT 2002 ACS
RN 424792-54-1 REGISTRY
CN INDEX NAME NOT YET ASSIGNED
FS 3D CONCORD
MF C12 H13 N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L9 ANSWER 5 OF 5379 REGISTRY COPYRIGHT 2002 ACS
RN 424792-53-0 REGISTRY
CN INDEX NAME NOT YET ASSIGNED
FS 3D CONCORD
MF C11 H11 N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

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=>
Uploading 10054462.str

L10     STRUCTURE UPLOADED

=> d his

     (FILE 'HOME' ENTERED AT 10:34:58 ON 11 JUN 2002)

     FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
L1              STRUCTURE UPLOADED
L2            0 S L1 FUL
L3              STRUCTURE UPLOADED
L4         1745 S L3 FUL
L5      3780047 S 3/NR
L6              STRUCTURE UPLOADED
L7        21031 S L6 FUL SUB=L5
L8              STRUCTURE UPLOADED
L9         5379 S L8 FUL SUB=L7
L10             STRUCTURE UPLOADED

=> s l10 subset=l5 ful
FULL SUBSET SEARCH INITIATED 10:40:33 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED -  19050 TO ITERATE

100.0% PROCESSED   19050 ITERATIONS                          1327 ANSWERS
SEARCH TIME: 00.00.01

L11        1327 SEA SUB=L5 SSS FUL L10

=> d 1-10
```
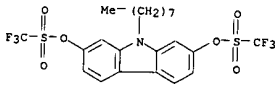
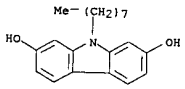

L11 ANSWER 1 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 406726-90-7 REGISTRY
CN Methanesulfonic acid, trifluoro-, 9-octyl-9H-carbazole-2,7-diyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C22 H23 F6 N O6 S2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

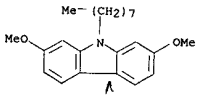
L11 ANSWER 2 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 406726-88-3 REGISTRY
CN 9H-Carbazole-2,7-diol, 9-octyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C20 H25 N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 3 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 406726-86-1 REGISTRY
CN 9H-Carbazole, 2,7-dimethoxy-9-octyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C22 H29 N O2
SR CA
LC STN Files: CA, CAPLUS

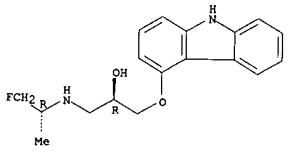


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 4 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 394251-37-7 REGISTRY
CN 2-Propanol, 1-(9H-carbazol-4-yloxy)-3-[[(1R)-2-fluoro-1-methylethyl]amino]-, (2R)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (R)-Fluorocarazolol
FS STEREOSEARCH
MF C18 H21 F N2 O2
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

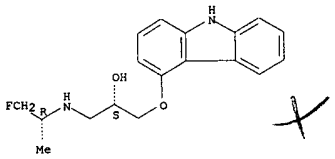


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 5 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 394251-35-5 REGISTRY
CN 2-Propanol,
1-(9H-carbazol-4-yloxy)-3-[[(1R)-2-fluoro-1-methylethyl]amino]-
, (2S)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (S)-Fluorocarazolol
FS STEREOSEARCH
MF C18 H21 F N2 O2
SR CA
LC STN Files: BIOSIS, CA, CAPLUS

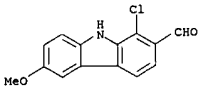
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

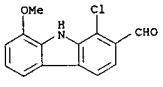
L11 ANSWER 6 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 393165-38-3 REGISTRY
CN 9H-Carbazole-2-carboxaldehyde, 1-chloro-6-methoxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H10 Cl N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

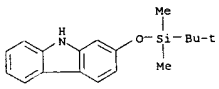
L11 ANSWER 7 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 393165-37-2 REGISTRY
CN 9H-Carbazole-2-carboxaldehyde, 1-chloro-8-methoxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H10 Cl N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

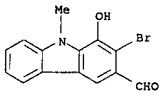
L11 ANSWER 8 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 392232-73-4 REGISTRY
CN 9H-Carbazole, 2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H23 N O Si
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

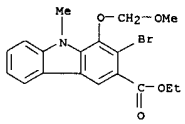
L11 ANSWER 9 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 387364-41-2 REGISTRY
CN 9H-Carbazole-3-carboxaldehyde, 2-bromo-1-hydroxy-9-methyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C14 H10 Br N O2
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L11 ANSWER 10 OF 1327 REGISTRY COPYRIGHT 2002 ACS
RN 387364-30-9 REGISTRY
CN 9H-Carbazole-3-carboxylic acid, 2-bromo-1-(methoxymethoxy)-9-methyl-, ethyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H18 Br N O4
SR CA
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

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=>
Uploading 10054462.str

L12     STRUCTURE UPLOADED

=> d his

     (FILE 'HOME' ENTERED AT 10:34:58 ON 11 JUN 2002)

     FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
L1              STRUCTURE UPLOADED
L2            0 S L1 FUL
L3              STRUCTURE UPLOADED
L4         1745 S L3 FUL
L5      3780047 S 3/NR
L6              STRUCTURE UPLOADED
L7        21031 S L6 FUL SUB=L5
L8              STRUCTURE UPLOADED
L9         5379 S L8 FUL SUB=L7
L10             STRUCTURE UPLOADED
L11        1327 S L10 FUL SUB=L5
L12             STRUCTURE UPLOADED

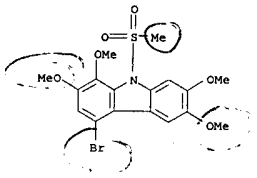
=> s l12 subset=l5 ful
FULL SUBSET SEARCH INITIATED 10:42:51 FILE 'REGISTRY'
FULL SUBSET SCREEN SEARCH COMPLETED -   1481 TO ITERATE

100.0% PROCESSED    1481 ITERATIONS                          11 ANSWERS
SEARCH TIME: 00.00.01

L13          11 SEA SUB=L5 SSS FUL L12

=> d 1-11
```

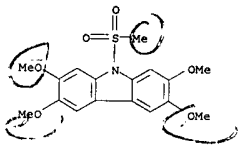
L13 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 146777-18-6 REGISTRY
CN 9H-Carbazole, 4-bromo-1,2,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H18 Br N O6 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

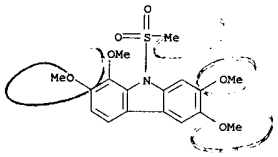
L13 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 146776-92-3 REGISTRY
CN 9H-Carbazole, 2,3,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H19 N O6 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

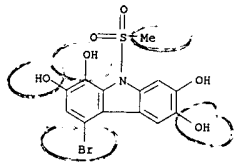
L13 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 146776-91-2 REGISTRY
CN 9H-Carbazole, 1,2,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H19 N O6 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

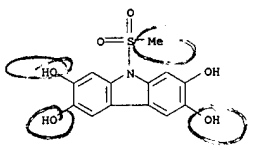
L13 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 146776-20-7 REGISTRY
CN 9H-Carbazole-1,2,6,7-tetrol, 4-bromo-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C13 H10 Br N O6 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

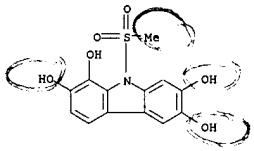
L13 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 146775-93-1 REGISTRY
CN 9H-Carbazole-2,3,6,7-tetrol, 9-(methylsulfonyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C13 H11 N O6 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

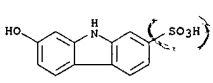
L13 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 146775-92-0 REGISTRY
CN 9H-Carbazole-1,2,6,7-tetrol, 9-(methylsulfonyl)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C13 H11 N O6 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

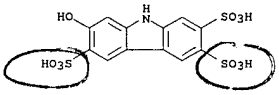
L13 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 117883-85-9 REGISTRY
CN Carbazole-2-sulfonic acid, 7-hydroxy-, sodium salt (6CI) (CA INDEX NAME)
MF C12 H9 N O4 S . Na
SR CAOLD
LC STN Files: CAOLD
CRN (14407-34-2)



● Na

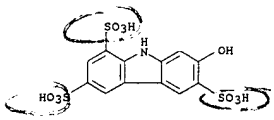
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 93775-99-6 REGISTRY
CN 9H-Carbazole-2,3,6-trisulfonic acid, 7-hydroxy-, sodium salt (9CI) (CA INDEX NAME)
MF C12 H9 N O10 S3 . x Na
SR Commission of European Communities
LC STN Files: CHEMLIST
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



●x Na

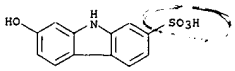
L13 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 91493-80-0 REGISTRY
CN Carbazole-1,3,6-trisulfonic acid, 7-hydroxy- (7CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O10 S3
LC STN Files: BEILSTEIN*, CAOLD
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

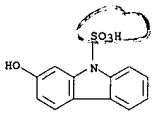
L13 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 14407-34-2 REGISTRY
CN Carbazole-2-sulfonic acid, 7-hydroxy- (7CI, 8CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O4 S
CI COM
LC STN Files: CAOLD



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L13 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2002 ACS
RN 13362-02-2 REGISTRY
CN 9H-Carbazole-9-sulfonic acid, 2-hydroxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O4 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
=> d his

     (FILE 'HOME' ENTERED AT 10:34:58 ON 11 JUN 2002)

     FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
L1                STRUCTURE UPLOADED
L2              0 S L1 FUL
L3                STRUCTURE UPLOADED
L4           1745 S L3 FUL
L5        3780047 S 3/NR
L6                STRUCTURE UPLOADED
L7          21031 S L6 FUL SUB=L5
L8                STRUCTURE UPLOADED
L9           5379 S L8 FUL SUB=L7
L10               STRUCTURE UPLOADED
L11          1327 S L10 FUL SUB=L5
L12               STRUCTURE UPLOADED
L13            11 S L12 FUL SUB=L5

=> s l13 and caplus/lc
      22549687 CAPLUS/LC
L14             6 L13 AND CAPLUS/LC

=> s l13 not l14
L15             5 L13 NOT L14

=> d 1-5
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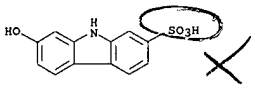
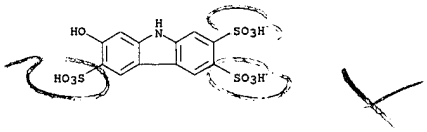
L15 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 117883-85-9 REGISTRY
CN Carbazole-2-sulfonic acid, 7-hydroxy-, sodium salt (6CI) (CA INDEX NAME)
MF C12 H9 N O4 S . Na
SR CAOLD
LC STN Files: CAOLD
CRN (14407-34-2)



● Na

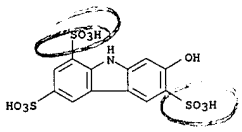
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L15 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 93775-99-6 REGISTRY
CN 9H-Carbazole-2,3,6-trisulfonic acid, 7-hydroxy-, sodium salt (9CI) (CA INDEX NAME)
MF C12 H9 N O10 S3 . x Na
SR Commission of European Communities
LC STN Files: CHEMLIST
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



●x Na

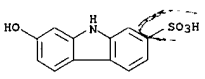
L15 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 91493-80-0 REGISTRY
CN Carbazole-1,3,6-trisulfonic acid, 7-hydroxy- (7CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O10 S3
LC STN Files: BEILSTEIN*, CAOLD
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

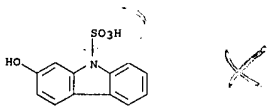
L15 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 14407-34-2 REGISTRY
CN Carbazole-2-sulfonic acid, 7-hydroxy- (7CI, 8CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O4 S
CI COM
LC STN Files: CAOLD



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L15 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2002 ACS
RN 13362-02-2 REGISTRY
CN 9H-Carbazole-9-sulfonic acid, 2-hydroxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O4 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                       794.85     795.06

FILE 'CAOLD' ENTERED AT 10:43:39 ON 11 JUN 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.  Title keywords, authors, patent
  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  This file supports REGlstRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

=> d his

     (FILE 'HOME' ENTERED AT 10:34:58 ON 11 JUN 2002)

     FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
L1               STRUCTURE UPLOADED
L2             0 S L1 FUL
L3               STRUCTURE UPLOADED
L4          1745 S L3 FUL
L5       3780047 S 3/NR
L6               STRUCTURE UPLOADED
L7         21031 S L6 FUL SUB=L5
L8               STRUCTURE UPLOADED
L9          5379 S L8 FUL SUB=L7
L10              STRUCTURE UPLOADED
L11         1327 S L10 FUL SUB=L5
L12              STRUCTURE UPLOADED
L13           11 S L12 FUL SUB=L5
L14            6 S L13 AND CAPLUS/LC
L15            5 S L13 NOT L14

     FILE 'CAOLD' ENTERED AT 10:43:39 ON 11 JUN 2002

=> s l13
L16           3 L13

=> d 1-3 iall hitstr
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L16 ANSWER 1 OF 3 CAOLD COPYRIGHT 2002 ACS
ACCESSION NUMBER: CA65:14697g CAOLD
TITLE: gelatin, antiswelling treatment of
PATENT ASSIGNEE: Gevaert-Agfa N. V.
DOCUMENT TYPE: Patent

PATENT NO.	KIND	DATE
NL 6605716		

INDEX TERM: 13362-01-1 **14407-34-2** 28351-47-5 91979-48-5
IT **14407-34-2**
RN 14407-34-2 CAOLD
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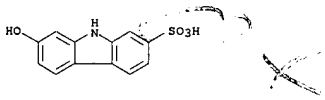
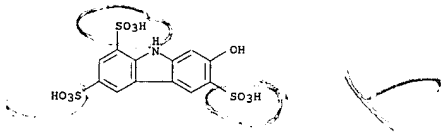


L16 ANSWER 2 OF 3 CAOLD COPYRIGHT 2002 ACS
ACCESSION NUMBER: CA59:7461c CAOLD
TITLE: 2-hydroxycarbazole
AUTHOR NAME: Karpukhin, P. P.; Levchenko, A. I.
TITLE: Fischer indole synthesis
AUTHOR NAME: Robinson, Brian
INDEX TERM: 86-79-3 **91493-80-0** 91493-81-1
IT **91493-80-0**
RN 91493-80-0 CAOLD
CN Carbazole-1,3,6-trisulfonic acid, 7-hydroxy- (7CI) (CA INDEX NAME)



L16 ANSWER 3 OF 3 CAOLD COPYRIGHT 2002 ACS
ACCESSION NUMBER: CA54:24641e CAOLD
TITLE: prepn. of 2-hydroxycarbazole from o-chloro-metanilic acid
AUTHOR NAME: Stepanov, B. I.; Nozdran, N. S.; Ogoleva, L. N.
INDEX TERM: 86-79-3 98-36-2 56395-28-9 98548-33-5 101937-76-2 102238-56-2 103097-88-7 103280-16-6 103280-17-7 107624-54-4 112484-28-3 112714-85-9 114098-45-2 116151-23-6 **117883-85-9**
IT **117883-85-9**
RN 117883-85-9 CAOLD
CN Carbazole-2-sulfonic acid, 7-hydroxy-, sodium salt (6CI) (CA INDEX NAME)

48

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                          ENTRY    SESSION
FULL ESTIMATED COST                                        8.09     803.15

FILE 'CAPLUS' ENTERED AT 10:44:10 ON 11 JUN 2002
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FILE COVERS 1907 - 11 Jun 2002  VOL 136 ISS 24
FILE LAST UPDATED: 9 Jun 2002  (20020609/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

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     FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
L1             STRUCTURE UPLOADED
L2           0 S L1 FUL
L3             STRUCTURE UPLOADED
L4        1745 S L3 FUL
L5     3780047 S 3/NR
L6             STRUCTURE UPLOADED
L7       21031 S L6 FUL SUB=L5
L8             STRUCTURE UPLOADED
L9        5379 S L8 FUL SUB=L7
L10            STRUCTURE UPLOADED
L11       1327 S L10 FUL SUB=L5
L12            STRUCTURE UPLOADED
L13         11 S L12 FUL SUB=L5
L14          6 S L13 AND CAPLUS/LC
L15          5 S L13 NOT L14

     FILE 'CAOLD' ENTERED AT 10:43:39 ON 11 JUN 2002
L16          3 S L13

     FILE 'CAPLUS' ENTERED AT 10:44:10 ON 11 JUN 2002

=> s l13
L17          1 L13
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49

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=> d 1 ibib abs hitstr
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L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:191567 CAPLUS
DOCUMENT NUMBER: 118:191567
TITLE: Preparation of tricyclic polyhydroxylic tyrosine kinase inhibitors
INVENTOR(S): Dow, Robert Lee
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9221660	A1	19921210	WO 1992-US2799	19920410
W: CA, FI, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
CA 2108889	AA	19921130	CA 1992-2108889	19920410
EP 586608	A1	19940316	EP 1992-917271	19920410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 06503095	T2	19940407	JP 1992-510250	19920410
US 6194439	B1	20010227	US 1993-142284	19931123
PRIORITY APPLN. INFO.:			US 1991-706629 A2	19910529
			WO 1992-US2799 W	19920410

OTHER SOURCE(S): MARPAT 118:191567
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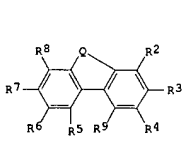
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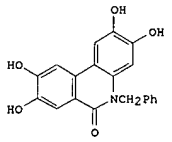
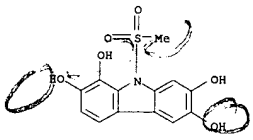

II

AB Title compds. I (Q = Z1N, Z2C, COX wherein Z1 = H, PhCH2 C1-4 alkyl, pyridylmethyl, naphthenylcarbonyl etc.; Z2 = H, O, PhCH2, hydroxybenzyl, pyridylmethyl, quinolinylmethyl, etc.; .gtoreq.2 and .ltoreq.4 of R2-R8 = HO, the remainder being H; R9 = H, halo, such that R9 = halo when Q = Z1N), useful as tyrosine kinase inhibitors (no data), are prepd. To a 0.degree. soln. of 5-(phenylmethyl)-2,3,8,9-tetramethoxy-6-(5H)-phenanthridinone in CH2Cl2 was added BBr3 to give the title compd. (II).

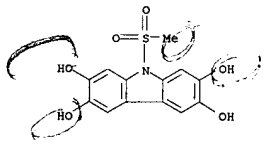
IT **146776-91-2P 146776-92-3P 146777-18-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, in prepn. of tyrosine kinase inhibitors)

RN 146776-91-2 CAPLUS
CN 9H-Carbazole, 1,2,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)

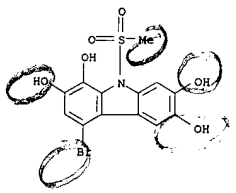
L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS (Continued)



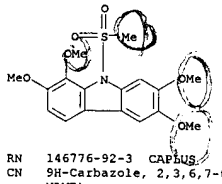
RN 146775-93-1 CAPLUS
CN 9H-Carbazole-2,3,6,7-tetrol, 9-(methylsulfonyl)- (9CI) (CA INDEX NAME)



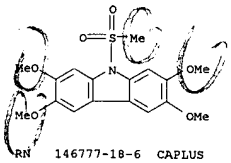
RN 146776-20-7 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 4-bromo-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)



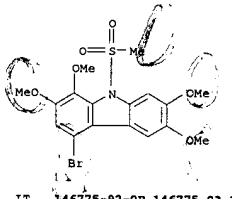
L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 146776-92-3 CAPLUS
CN 9H-Carbazole, 2,3,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)



RN 146777-18-6 CAPLUS
CN 9H-Carbazole, 4-bromo-1,2,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)



IT **146775-92-0P 146775-93-1P 146776-20-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as tyrosine kinase inhibitor)

RN 146775-92-0 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-(methylsulfonyl)- (9CI) (CA INDEX NAME)

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=> fil reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                          ENTRY     SESSION
FULL ESTIMATED COST                                        4.79      807.94

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)              SINCE FILE      TOTAL
                                                          ENTRY     SESSION
CA SUBSCRIBER PRICE                                       -0.62       -0.62

FILE 'REGISTRY' ENTERED AT 10:44:39 ON 11 JUN 2002
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STRUCTURE FILE UPDATES:    9 JUN 2002  HIGHEST RN 427875-85-2
DICTIONARY FILE UPDATES:   9 JUN 2002  HIGHEST RN 427875-85-2

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Calculated physical property data is now available.  See HELP PROPERTIES
for more information.  See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L1                STRUCTURE UPLOADED
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L3                STRUCTURE UPLOADED
L4           1745 S L3 FUL
L5        3780047 S 3/NR
L6                STRUCTURE UPLOADED
L7          21031 S L6 FUL SUB=L5
L8                STRUCTURE UPLOADED
L9           5379 S L8 FUL SUB=L7
L10               STRUCTURE UPLOADED
L11          1327 S L10 FUL SUB=L5
L12               STRUCTURE UPLOADED
L13            11 S L12 FUL SUB=L5
L14             6 S L13 AND CAPLUS/LC
L15             5 S L13 NOT L14

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L16             3 S L13

     FILE 'CAPLUS' ENTERED AT 10:44:10 ON 11 JUN 2002
L17             1 S L13

     FILE 'REGISTRY' ENTERED AT 10:44:39 ON 11 JUN 2002

=> s l12 ful
FULL SEARCH INITIATED 10:44:49 FILE 'REGISTRY'
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FULL SCREEN SEARCH COMPLETED -  33271 TO ITERATE

100.0% PROCESSED   33271 ITERATIONS                          74 ANSWERS
SEARCH TIME: 00.00.01

L18          74 SEA SSS FUL L12

=> s l18 and caplus/lc
      22549687 CAPLUS/LC
L19          67 L18 AND CAPLUS/LC

=> s l18 not l19
L20           7 L18 NOT L19

=> d 1-7
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L20 ANSWER 1 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 121474-63-3 REGISTRY
CN Carbazole-1,3,6-trisulfonic acid, 7-(6,11-dihydro-6,11-dioxo-1H-anthra[1,2-d]triazol-4-yloxy)- (6CI) (CA INDEX NAME)
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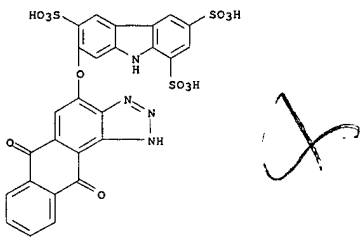
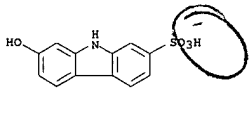
MF C26 H14 N4 O12 S3
SR CAOLD
LC STN Files: CAOLD



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L20 ANSWER 2 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 117883-85-9 REGISTRY
CN Carbazole-2-sulfonic acid, 7-hydroxy-, sodium salt (6CI) (CA INDEX NAME)
MF C12 H9 N O4 S . Na
SR CAOLD
LC STN Files: CAOLD
CRN (14407-34-2)



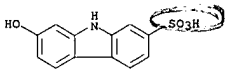
● Na

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L20 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 102238-56-2 REGISTRY
CN Carbazole-2-sulfonic acid, 7-hydroxy-, compd. with 2-benzyl-2-thiopseudourea (6CI) (CA INDEX NAME)
MF C12 H9 N O4 S . C8 H10 N2 S
SR CAOLD
LC STN Files: CAOLD

CM 1

CRN 14407-34-2
CMF C12 H9 N O4 S

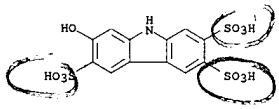


CM 2

CRN 621-85-2
CMF C8 H10 N2 S

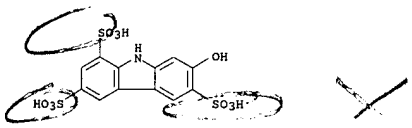
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L20 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 93775-99-6 REGISTRY
CN 9H-Carbazole-2,3,6-trisulfonic acid, 7-hydroxy-, sodium salt (9CI) (CA INDEX NAME)
MF C12 H9 N O10 S3 . x Na
SR Commission of European Communities
LC STN Files: CHEMLIST
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



●x Na

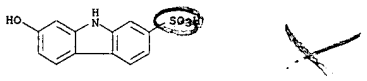
L20 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 91493-80-0 REGISTRY
CN Carbazole-1,3,6-trisulfonic acid, 7-hydroxy- (7CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O10 S3
LC STN Files: BEILSTEIN*, CAOLD
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

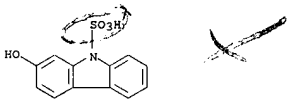
L20 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 14407-34-2 REGISTRY
CN Carbazole-2-sulfonic acid, 7-hydroxy- (7CI, 8CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O4 S
CI COM
LC STN Files: CAOLD



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L20 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2002 ACS
RN 13362-02-2 REGISTRY
CN 9H-Carbazole-9-sulfonic acid, 2-hydroxy- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C12 H9 N O4 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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                                                       ENTRY    SESSION
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                                                       ENTRY    SESSION
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FILE LAST UPDATED: 9 Jun 2002  (20020609/ED)

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=> d his

     (FILE 'HOME' ENTERED AT 10:34:58 ON 11 JUN 2002)

     FILE 'REGISTRY' ENTERED AT 10:35:14 ON 11 JUN 2002
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L2           0 S L1 FUL
L3             STRUCTURE UPLOADED
L4        1745 S L3 FUL
L5     3780047 S 3/NR
L6             STRUCTURE UPLOADED
L7       21031 S L6 FUL SUB=L5
L8             STRUCTURE UPLOADED
L9        5379 S L8 FUL SUB=L7
L10            STRUCTURE UPLOADED
L11       1327 S L10 FUL SUB=L5
L12            STRUCTURE UPLOADED
L13         11 S L12 FUL SUB=L5
L14          6 S L13 AND CAPLUS/LC
L15          5 S L13 NOT L14

     FILE 'CAOLD' ENTERED AT 10:43:39 ON 11 JUN 2002
L16          3 S L13
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L17            1 S L13

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L18           74 S L12 FUL
L19           67 S L18 AND CAPLUS/LC
L20            7 S L18 NOT L19

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=> s l18
L21           29 L18

=> d 1-29 ibib abs hitstr
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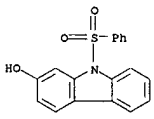
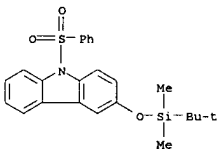
L21 ANSWER 1 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:478047 CAPLUS
DOCUMENT NUMBER: 135:257109
TITLE: Diels-Alder reactions of 2- and 3-nitroindoles. A simple hydroxycarbazole synthesis
AUTHOR(S): Kishbaugh, T. L. S.; Gribble, G. W.
CORPORATE SOURCE: Department of Chemistry, Dartmouth College, Hanover, NH, 03755, USA
SOURCE: Tetrahedron Letters (2001), 42(29), 4783-4785
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:257109
AB A Diels-Alder reaction of 3- and 2-nitroindoles with Danishefsky's diene gives the expected 2- and 3-hydroxycarbazoles in very good to excellent yields (73-91%) and with apparent complete regioselectivity.
IT **361434-21-1P 361434-25-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 361434-21-1 CAPLUS
CN 9H-Carbazol-2-ol, 9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

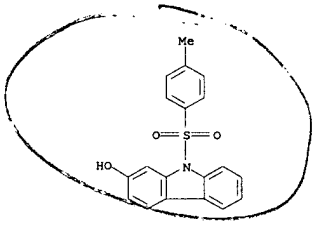


RN 361434-25-5 CAPLUS
CN 9H-Carbazole, 3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

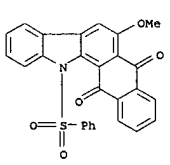
L21 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:327078 CAPLUS
DOCUMENT NUMBER: 135:92508
TITLE: Reactions of 1-Tosyl-3-substituted Indoles with Conjugated Dienes under Thermal and/or High-Pressure Conditions
AUTHOR(S): Biolatto, Betina; Kneeteman, Maria; Paredes, Elisa; Mancini, Pedro M. E.
CORPORATE SOURCE: Laboratorio Fester Area de Quimica Organica Departamento de Quimica Facultad de Ingenieria Quimica, Universidad Nacional del Litoral, Santa Fe, 3000, Argent.
SOURCE: Journal of Organic Chemistry (2001), 66(11), 3906-3912
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The behavior of 1-tosyl-3-acetylindole, N,N-diethyl-1-tosyl-3-indoleglyoxylamide, and 1-tosyl-3-nitroindole as dienophiles in Diels-Alder reactions under thermal and/or high-pressure conditions was explored with different dienes: isoprene, 1-(N-acetyl-N-propylamino)-1,3-butadiene, and 1-methoxy-3-trimethylsilyloxy-1,3-butadiene (Danishefsky's diene). Compared to the acylated indoles, the nitro deriv. proved to be the best dienophile. In general, the use of Danishefsky's diene led to high-yielding reactions under milder conditions. Likewise, high-pressure conditions proved to be better in producing high yields of products. The advantage of high-pressure over thermal conditions was the ability of the former to generate highly functionalized adducts in better yields, which were otherwise very difficult or impossible to obtain. The use of thermal
or high-pressure conditions led to different regio- and/or stereoselectivity in the adducts, allowing control of the regio- or stereoisomer produced.
IT **349083-93-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(Diels-Alder reactions of tosylindoles with conjugated dienes under thermal and/or high-pressure conditions)
RN 349083-93-8 CAPLUS
CN 9H-Carbazol-2-ol, 9-[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)

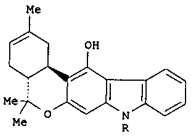
L21 ANSWER 3 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:758365 CAPLUS
DOCUMENT NUMBER: 134:65903
TITLE: Functionalized and [a]-anellated carbazoles as potential B-DNA ligands: experimental studies of DNA binding and molecular modeling of intercalation complexes
AUTHOR(S): Pindur, U.; Marotto, A.; Schulze, E.; Fischer, G.
CORPORATE SOURCE: Inst. Pharm., Fac. Chem. Parm., Johannes-Gutenberg-Univ., Mainz, Germany
SOURCE: Pharmazie (2000), 55(10), 727-732
CODEN: PHARAT; ISSN: 0031-7144
PUBLISHER: Govi-Verlag Pharmazeutischer Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three synthetically available carbazole derivs. were investigated for DNA binding (ethidium bromide displacement assay, DNA unwinding assay), for inhibition of topoisomerase I and for cell cytotoxicity (antitumor cell lines). In addn. mol. modeling studies of DNA complexes were performed by
semiempirical quantum chem., force field calcns. and mol. dynamics calcns.
In summary, combining the results from expts. and mol. modeling, the naphthoquinone anellated carbazole emerges as a promising antitumor active
candidate for further drug design studies in carbazole chem.
IT **138054-33-8**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological
process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(functionalized and [a]-anellated carbazoles as potential B-DNA ligands
in exptl. studies of DNA binding and mol. modeling of intercalation complexes in relation to antitumor activity and topoisomerase 1 inhibition)
RN 138054-33-8 CAPLUS
CN 5H-Naphtho[2,3-a]carbazole-5,13(12H)-dione, 6-methoxy-12-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



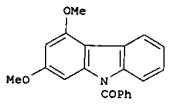
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:141740 CAPLUS
DOCUMENT NUMBER: 132:321990
TITLE: Synthesis and pharmacology of a hybrid cannabinoid
AUTHOR(S): Huffman, J. W.; Lu, J.; Dai, D.; Kitaygorodskiy, A.; Wiley, J. L.; Martin, B. R.
CORPORATE SOURCE: Howard L. Hunter Laboratory, Clemson University, Clemson, SC, USA
SOURCE: Bioorganic & Medicinal Chemistry (2000), 8(2), 439-447
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 132:321990
GI



I



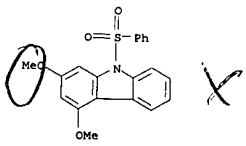
II

AB A pentacyclic hybrid cannabinoid I (R = C5H11) was synthesized and it combined structural elements of traditional cannabinoids and cannabimimetic indoles. I (R = C5H11) contained a 1-pentylindole structure fused to the 2,3-positions of the partially reduced hydroxydibenzopyran system of THC. The successful approach to I (R = C5H11) employed 9-benzoyl-5,7-dimethoxy-1,2,3,4-tetrahydrocarbazole as the starting material. This 1,2,3,4-tetrahydrocarbazole was then dehydrogenated to II, followed by demethylation and condensation with trans-p-menthadienol to yield the N-benzoyl hybrid cannabinoid I (R = COPh), which when N-alkylated afforded the target cannabinoid I (R = C5H11). The hybrid cannabinoid had affinity for the CB1 receptor approx. equal to that of .DELTA.9-THC (Ki=19.3.+-.3 nM), and showed comparable potency in vivo.

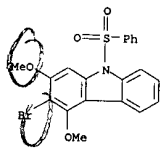
IT **266326-28-7P 266326-29-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and pharmacol. of a pentacyclic hybrid cannabinoid)

RN 266326-28-7 CAPLUS
CN 9H-Carbazole, 2,4-dimethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

L21 ANSWER 4 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 266326-29-8 CAPLUS
CN 9H-Carbazole, 3-bromo-2,4-dimethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS
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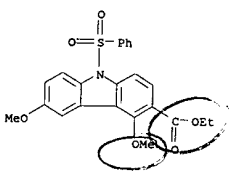
L21 ANSWER 5 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:480167 CAPLUS
DOCUMENT NUMBER: 127:102039
TITLE: Ethyl 4,6-dimethoxy-9-phenylsulfonylcarbazole-3-carboxylate
AUTHOR(S): Govindasamy, Lakshmanan; Velmurugan, D.; Ravikumar, K.; Mohanakrishnan, A. K.
CORPORATE SOURCE: Dep. Crystallography and Biophysics, Guindy Campus, Univ. Madras, Madras, 600 025, India
SOURCE: Acta Crystallographica, Section C: Crystal Structure Communications (1997), C53(7), 929-931
CODEN: ACSCEE; ISSN: 0108-2701
PUBLISHER: Munksgaard
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The crystal structure of the title compd., C23H21NO6S, was detd. The planar carbazole ring subtends an angle of 82.7(4).degree. with the phenylsulfonyl group. The lengthening or shortening of the C-N bond distances [C5-N 1.437(4), C6-N 1.418(4) .ANG.] is due to the electronic withdrawing character of the phenylsulfonyl group. The S atom is in the usual distorted tetrahedral configuration. Crystallog. data are given.

IT **147848-08-6**
RL: PRP (Properties)
(crystal structure of)

RN 147848-08-6 CAPLUS
CN 9H-Carbazole-3-carboxylic acid, 4,6-dimethoxy-9-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)



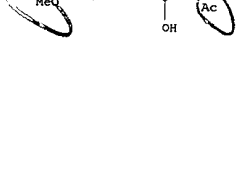
L21 ANSWER 6 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:417358 CAPLUS
DOCUMENT NUMBER: 127:58462
TITLE: 4-Hydroxy-6-methoxy-9-phenylsulfonylcarbazol-3-yl methyl ketone
AUTHOR(S): Govindasamy, L.; Velmurugan, D.; Ravikumar, K.; Mohanakrishnan, A. K.
CORPORATE SOURCE: Department of Crystallography and Biophysics, University of Madras, Madras, 600 025, India
SOURCE: Acta Crystallographica, Section C: Crystal Structure Communications (1997), C53(6), 771-773
CODEN: ACSCEE; ISSN: 0108-2701
PUBLISHER: Munksgaard
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The asym. unit of the crystals of the title compd., C21H17NO5S, contains two crystallog. independent mols., each consisting of a carbazole moiety and a phenylsulfonyl group. The geometry around the S atoms is distorted from that of a regular tetrahedron. Crystallog. data are given.

IT **147848-03-1**
RL: PRP (Properties)
(crystal structure of)

RN 147848-03-1 CAPLUS
CN 9H-Carbazol-4-ol, 3-acetyl-6-methoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



59

L21 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2002 ACS

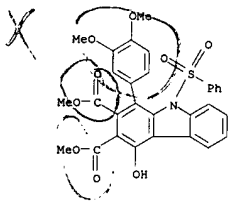
ACCESSION NUMBER: 1997:271246 CAPLUS
DOCUMENT NUMBER: 126:317282
TITLE: Synthesis and hypolipidemic activity of diesters of arylnaphthalene lignan and their heteroaromatic analogs
AUTHOR(S): Kuroda, Tooru; Kondo, Kazuhiko; Iwasaki, Tameo; Ohtani, Akio; Takashima, Kohki
CORPORATE SOURCE: Res. Lab. Tanabe Seiyaku Co., Ltd., Osaka, 532, Japan
SOURCE: Chem. Pharm. Bull. (1997), 45(4), 678-684
CODEN: CPBTAL; ISSN: 0009-2363
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A series of arylnaphthalene lignan diesters (I) (R1 = Me, Et, CHMe2, C6H13, C10H21, CH2Ph, CH2CH2OMe, CH2CH2NEt2.HCl, CH2CH2-4-morpholine.HCl, 3-pyridyl.HCl, cyclohexylmethyl, CH2Ph; R2 = Me, Et, CHEt2, C6H13, cyclohexylmethyl, CH2Ph)) and their heteroarom. analogs II (R3 = Me, Et) and III (R4 = SO2Ph, H) were synthesized and evaluated for hypolipidemic activity. The diesters with modifications at C-3 showed excellent hypocholesterolemic and high-d. lipoprotein (HDL) cholesterol-elevating activities. Structure-activity anal. indicated that I (R1 = 2-pyridylmethyl.HCl, R2 = Me) has the optimum activity.

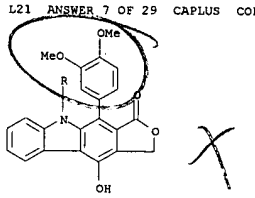
IT **123694-44-0P 123694-47-3P**
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant);
SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and hypolipidemic activity of diesters of arylnaphthalene lignan and their heteroarom. analogs)

RN 123694-44-0 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 1-(3,4-dimethoxyphenyl)-4-hydroxy-9-(phenylsulfonyl)-, dimethyl ester (9CI) (CA INDEX NAME)



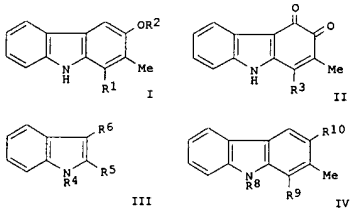
RN 123694-47-3 CAPLUS
CN 3H-Furo[3,4-b]carbazol-3-one, 4-(3,4-dimethoxyphenyl)-1,5-dihydro-10-hydroxy-5-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

L21 ANSWER 7 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



L21 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:218640 CAPLUS
DOCUMENT NUMBER: 126:211945
TITLE: Total Syntheses of Carazostatin, Hyellazole, and Carbazoquinocins B-F
AUTHOR(S): Choshi, Tominari; Sada, Takuya; Fujimoto, Hiroyuki; Nagayama, Chizu; Sugino, Eiichi; Hibino, Satoshi
CORPORATE SOURCE: Faculty of Pharmacy and Pharmaceutical Sciences, Fukuyama University, Fukuyama, 729-02, USA
SOURCE: J. Org. Chem. (1997), 62(8), 2535-2543
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 126:211945
GI

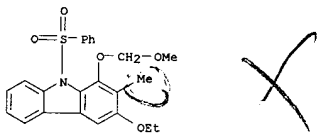


AB Total syntheses of carazostatin [I; R1 = (CH2)6Me, R2 = H], hyellazole (I;
R1 = Ph, R2 = Me), and carbazoquinocins B-F [II; R3 = (CH2)4CHMe2, (CH2)6Me, (CH2)4CHMeEt, (CH2)5CHMe2, (CH2)6CHMe2] are described. The cross-coupling reaction between 3-iodoindole III (R4 = SO2Ph, CH2OMe, R5 =
CHO, R6 = iodo) and Bu3SnCH:CHR8 (R7 = H, OEt) gave the 3-alkenylindole III (R6 = CH:CHR7). Treatment of the latter with ethynylmagnesium bromide, followed by etherification of the resulting alc. with MOMCl, yielded the 3-alkenyl-2-propargylindole III [R5 = CH(OCH2OMe)C.tplbond.CH,
R6 = CH:CHR7]. The latter was treated with t-BuOK in t-BuOH at 90 .degree.C to obtain the desired carbazoles IV (R8 = SO2Ph, CH2OMe, R9 = OCH2OMe, R10 = H, OEt) together with the N-deprotected carbazoles through an allene-mediated electrocyclic reaction. The carbazole IV (R8 = H, R9 =
OCH2OMe, R10 = OEt) derived from IV (R8 = SO2Ph, CH2OMe, R9 = OCH2OMe, R10
= OEt) was converted into the triflate IV (R8 = H, R9 = O3SCF3, R10 = OEt)
in two steps. The triflate IV (R8 = H, R9 = O3SCF3, R10 = OEt) was subjected to the Suzuki cross-coupling reaction with either 9-heptyl-9-BBN
or phenylboronic acid in the presence of a palladium catalyst to produce the 1-heptylcarbazole IV [R8 = H, R9 = (CH2)6Me, R10 = OEt] and the 1-phenylcarbazole IV [R8 = H, R9 = Ph, R10 = OEt]. Cleavage of the ether bond of IV [R8 = H, R9 = (CH2)6Me, R10 = OEt] yielded carazostatin. Cleavage of the ether bond of IV [R8 = H, R9 = Ph, R10 = OEt] followed by O-methylation gave hyellazole. Oxidn. of carazostatin with benzeneseleninic anhydride afforded carbazoquinocin C. In a similar way, carbazoquinocins B and D-F were synthesized, resp.

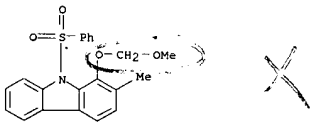
L21 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)

IT **176327-49-4P 188037-46-9P 188037-66-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(total syntheses of carazostatin, hyellazole, and carbazoquinocins B-F via an electrocyclization)

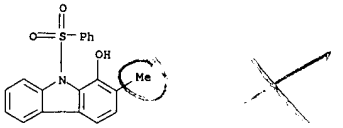
RN 176327-49-4 CAPLUS
CN 9H-Carbazole, 3-ethoxy-1-(methoxymethoxy)-2-methyl-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 188037-46-9 CAPLUS
CN 9H-Carbazole, 1-(methoxymethoxy)-2-methyl-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

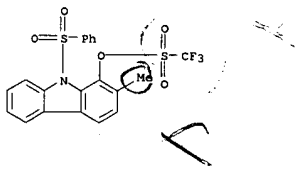


RN 188037-66-3 CAPLUS
CN 9H-Carbazol-1-ol, 2-methyl-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



IT **188037-68-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(total syntheses of carazostatin, hyellazole, and carbazoquinocins B-F

L21 ANSWER 8 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)
via an electrocyclization)
RN 188037-68-5 CAPLUS
CN Methanesulfonic acid, trifluoro-, 2-methyl-9-(phenylsulfonyl)-9H-carbazol-1-yl ester (9CI) (CA INDEX NAME)



L21 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:145245 CAPLUS
DOCUMENT NUMBER: 126:157408
TITLE: Preparation of N-(arylcarbonyl or heterocyclylcarbonyl)amino(carboxyalkenyl)bicycloheptane derivatives or analogs thereof and prostaglandin D2 (PGD2) antagonists containing the same
INVENTOR(S): Ohtani, Mitsuaki; Arimura, Akinori; Tsuri, Tatsuo; Kishino, Junji; Honma, Tsunetoshi
PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan; Ohtani, Mitsuaki; Arimura, Akinori; Tsuri, Tatsuo; Kishino, Junji; Honma, Tsunetoshi
SOURCE: PCT Int. Appl., 242 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

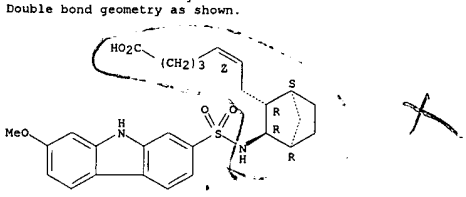
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9700853	A1	19970109	WO 1996-JP1685	19960619
W: AL, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2225250	AA	19970109	CA 1996-2225250	19960619
AU 9661370	A1	19970122	AU 1996-61370	19960619
AU 714312	B2	19991223		
EP 837052	A1	19980422	EP 1996-918841	19960619
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1193315	A	19980916	CN 1996-196326	19960619
BR 9608498	A	19990706	BR 1996-8498	19960619
CZ 285870	B6	19991117	CZ 1997-4013	19960619
JP 3195361	B2	20010806	JP 1997-503724	19960619
JP 2001288160	A2	20011016	JP 2001-73708	19960619
NO 9705994	A	19980223	NO 1997-5994	19971219
US 6172113	B1	20010109	US 1998-973983	19980422
US 6384075	B1	20020507	US 2000-506608	20000218

PRIORITY APPLN. INFO.:
JP 1995-154575 A 19950621
JP 1997-503724 A3 19960619
WO 1996-JP1685 W 19960619
US 1998-973983 A3 19980422

OTHER SOURCE(S): MARPAT 126:157408
GI For diagram(s), see printed CA Issue.
AB Compds. of general formula [I; ring Y = Q - Q3; A = alkylene optionally interrupted with phenylene or hetero atoms and optionally contg. oxo and/or unsatd. bonds; B = H, alkyl, aralkyl, acyl; R = CO2R1, CH2OR2, CONR3R4; R1, R2 = H, alkyl; R3, R4 = H, alkyl, OH, alkylsulfonyl; X1 = single bond, phenylene, naphthylene, thiophenediyl, indolediyl, oxazolediyl; X2 = single bond, N:N, N:CH, CH:N, CH:NN, CH:NO, C:NNHCSNH, C:NNHCONH, CH:CH, CH(OH), CCl:CCl, (CH2)n, C.tplbond.C, NR5, NR5CO, NR5SO2, NR5CONR5, CONR5, SO2NR5, O, S, SO, SO2, CO, oxadiazolediyl, thiadiazolediyl, tetrazolediyl; wherein R5 = H, alkyl; X3 = alkyl, alkenyl, alkynyl, aryl, aralkyl, heterocyclyl, cycloalkyl, cycloalkenyl, thiazolylidene, etc.; Z = SO2, CO; m = 0,1; wherein if the substituents

L21 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)
are in the form of rings, they may be optionally substituted] or salts thereof or hydrates thereof are prepd. These compds. are useful as a PGD2 antagonists and thus usable in, for example, a remedy for systemic mastocytosis or systemic mast cell activation disorders, a drug for bronchoconstriction, an antiasthmatic, a drug for allergic rhinitis agent, a drug for allergic conjunctivitis, a drug for urticaria, a remedy for ischemia reperfusion disorders or an antiinflammatory agent. They are particularly useful in the treatment of nasal occlusion. Thus, a bicyclo[2.2.1]heptane deriv. (II; R = Me, R7 = H) was condensed with 2-chlorosulfonyldibenzofuran in the presence of Et3N in CH2Cl2 to give, after sapon., II .Na (R = H, R7 = Q3). I in vitro inhibited the binding of [3H]PGD2 to PGD2 receptor prepn. from human blood platelet fraction with IC50 of 0.003-8.6 .mu.M. A tablet and granule formulation contg. the title compd. (III.1/2Ca) were described.
IT **186530-38-1P 186530-39-2P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of amino(carboxyalkenyl)bicycloheptane derivs. as prostaglandin D2 antagonists for disease therapy)
RN 186530-38-1 CAPLUS
CN 5-Heptenoic acid, 7-[3-[[(7-methoxy-9H-carbazol-2-yl)sulfonyl]amino]bicyclo[2.2.1]hept-2-yl]-, [1S-[1.alpha.,2.alpha.(Z),3.beta.,4.alpha.]]- (9CI) (CA INDEX NAME)

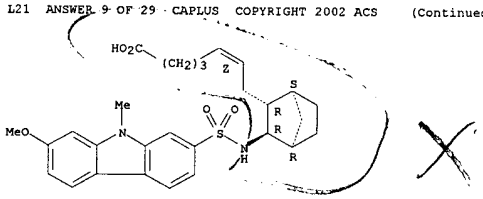
Absolute stereochemistry.
Double bond geometry as shown.



RN 186530-39-2 CAPLUS
CN 5-Heptenoic acid, 7-[3-[[(7-methoxy-9-methyl-9H-carbazol-2-yl)sulfonyl]amino]bicyclo[2.2.1]hept-2-yl]-, [1S-[1.alpha.,2.alpha.(Z),3.beta.,4.alpha.]]- (9CI) (CA INDEX NAME)

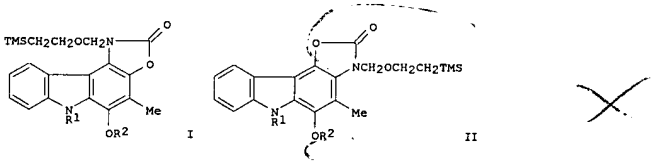
Absolute stereochemistry.
Double bond geometry as shown.

L21 ANSWER 9 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



61

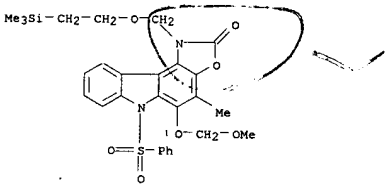
L21 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:612245 CAPLUS
DOCUMENT NUMBER: 126:8082
TITLE: Synthesis of new tetracyclic oxazolocarbazoles as functionalized precursors to antioxidative agents, antiostatins and carbazoquinocins
AUTHOR(S): Choshi, Tominari; Fujimoto, Hiroyuki; Sugino, Eiichi; Hibino, Satoshi
CORPORATE SOURCE: Fac. Pharmacy Pharmaceutical Sci., Fukuyama Univ., Fukuyama, 729-02, Japan
SOURCE: Heterocycles (1996), 43(9), 1847-1854
CODEN: HTCYAM; ISSN: 0385-5414
PUBLISHER: Japan Institute of Heterocyclic Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB The prepn. of oxazolo[5,4-c]carbazoles I (R1 = phenylsulfonyl, methoxymethyl, H, etc.; R2 = methoxymethyl, H, etc.) and oxazolo[4,5-c]carbazoles II (same R1, R2) was described. The target compds. are functionalized precursors to antioxidative antiostatins (A1-4 and B2-5) and carbazoquinocins (A-F) (no data). The properties of I and II were not reported.

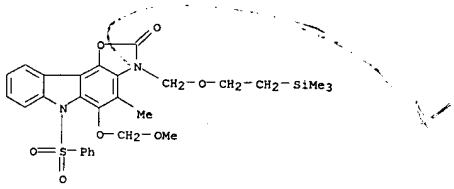
IT **183552-17-2P 183552-21-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of oxazolo[5,4-c]carbazoles and oxazolo[4,5-c]carbazoles)

RN 183552-17-2 CAPLUS
CN 2H-Oxazolo[5,4-c]carbazol-2-one, 1,6-dihydro-5-(methoxymethoxy)-4-methyl-6-(phenylsulfonyl)-1-[[2-(trimethylsilyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)



RN 183552-21-8 CAPLUS

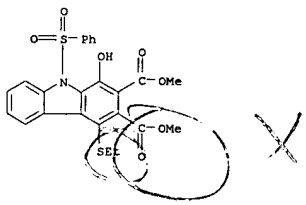
L21 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)
CN 2H-Oxazolo[4,5-c]carbazol-2-one, 3,6-dihydro-5-(methoxymethoxy)-4-methyl-6-(phenylsulfonyl)-3-[[2-(trimethylsilyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)



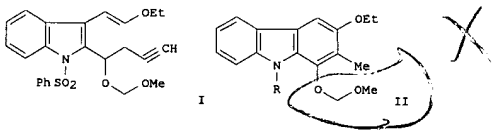
L21 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:501729 CAPLUS
DOCUMENT NUMBER: 125:247764
TITLE: A Facile and Efficient Synthesis of Thieno[2,3-c]furans and Furo[3,4-b]indoles via a Pummerer-Induced Cyclization Reaction
AUTHOR(S): Kappe, C. Oliver; Padwa, Albert
CORPORATE SOURCE: Department of Chemistry, Emory University, Atlanta, GA, 30322, USA
SOURCE: J. Org. Chem. (1996), 61(18), 6166-6174
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The .alpha.-thiocarbocation generated from the Pummerer reaction of an o-heteroaroyl-substituted sulfoxide was intercepted by the adjacent keto group to give an .alpha.-thio-substituted heteroarom. isobenzofuran. In the presence of a suitable dienophile, the reactive o-xylylene underwent a Diels-Alder cycloaddn. followed by an acid-catalyzed ring-opening and aromatization to give heteroarom. naphthalene derivs. This one-pot procedure occurred smoothly with electron-deficient dienophiles. The tandem Pummerer cyclization-cycloaddn. sequence also occurred intramolecularly using unactivated alkenyl tethers of variable length. With acetylenic dienophiles, the primary cycloadducts underwent in situ ring-opening to produce hydroxynaphthalene derivs. In the absence of a dienophile, it was possible to prep. 4-(ethylthio)-6-phenylthieno[2,3-c]furan and 1-ethyl-4-(phenylsulfonyl)-4H-furo[3,4-b]indole. Various synthetic approaches were used for the prepn. of the requisite thiophene- and indole-derived sulfoxide precursors. The facility of the tandem Pummerer-Diels-Alder reaction was very dependent on the exptl. conditions used to promote the reaction. The best results were achieved by employing a mixt. of acetic anhydride and toluene which contained a catalytic quantity of p-toluenesulfonic acid. The presence of the acid effectively drives the reaction in the desired direction by preventing formation of the acetoxy sulfide, which corresponded to the normal Pummerer product.

IT **181868-71-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of thieno[2,3-c]furans and furo[3,4-b]indoles via Pummerer reaction)

RN 181868-71-3 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 4-(ethylthio)-1-hydroxy-9-(phenylsulfonyl)-, dimethyl ester (9CI) (CA INDEX NAME)



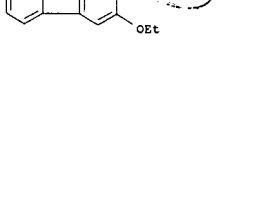
L21 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:244094 CAPLUS
DOCUMENT NUMBER: 124:317561
TITLE: Total syntheses of carazostatin and hyellazole by allene-mediated electrocyclic reaction
AUTHOR(S): Choshi, Tominari; Sada, Takuya; Fujimoto, Hiroyuki; Nagayama, Chizu; Sugino, Eiichi; Hibino, Satoshi
CORPORATE SOURCE: Fac. Pharmacy Pharmaceutical Sci., Fukuyama Univ., Fukuyama, 729-02, Japan
SOURCE: Tetrahedron Lett. (1996), 37(15), 2593-6
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 124:317561
GI



AB The free radical scavenger carazostatin and the marine alkaloid hyellazole were synthesized by a new type of allene-mediated electrocyclic reaction involving the indole 2,3-bond as a key step. Propynylindole I was cyclized in the presence of t-BuOK/t-BuOH via an allene intermediate to form a mixt. of carbazoles (II; R = H, PhSO2). Carbazole II (R = H) was then converted to both carazostatin and hyellazole.

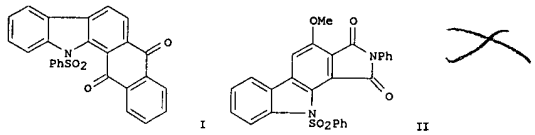
IT **176327-49-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(total syntheses of carazostatin and hyellazole by allene mediated electrocyclic reaction)

RN 176327-49-4 CAPLUS
CN 9H-Carbazole, 3-ethoxy-1-(methoxymethoxy)-2-methyl-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



62

L21 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:233753 CAPLUS
DOCUMENT NUMBER: 125:10587
TITLE: [a]-Anellated carbazoles with antitumor activity: synthesis and cytotoxicity
AUTHOR(S): Rogge, M.; Fischer, G.; Pindur, U.; Schollmeyer, D.
CORPORATE SOURCE: Inst. Pharmazie, Univ. Mainz, Mainz, D-55099, Germany
SOURCE: Monatsh. Chem. (1996), 127(1), 97-102
CODEN: MOCMB7; ISSN: 0026-9247
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

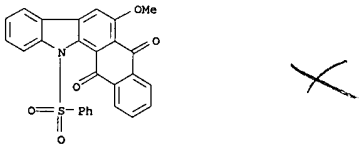


I II

AB Coplanar [a]-annelated carbazoles, e.g. I and II, were prepd. by dehydrogenation of the resp. precursors with DDQ. One of the compds., 12-(phenylsulfonyl)-5H-naphtho[2,3-a]carbazole-5,13(12H)-dione, was also characterized by X-ray structural anal. This compd. , showed significant cytotoxicity against K562 und RXF393 human tumor cell lines.

IT **138054-33-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antineoplastic and cytotoxic activity of annelated carbazoles)

RN 138054-33-8 CAPLUS
CN 5H-Naphtho[2,3-a]carbazole-5,13(12H)-dione, 6-methoxy-12-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



L21 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:991003 CAPLUS
DOCUMENT NUMBER: 124:81486
TITLE: Haptens, tracers, immunogens and antibodies for carbazole and dibenzofuran derivatives
INVENTOR(S): Fino, James R.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: U.S., 17 pp. Cont.-in-part of U.S. Ser. No. 808, 839, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

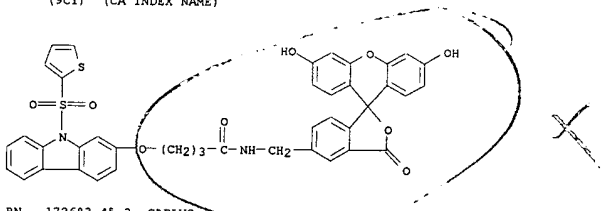
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5464746	A	19951107	US 1993-84495	19930701
US 5541333	A	19960730	US 1995-421334	19950413
PRIORITY APPLN. INFO.:			US 1991-808839	19911217
			US 1993-84495	19930701

OTHER SOURCE(S): MARPAT 124:81486

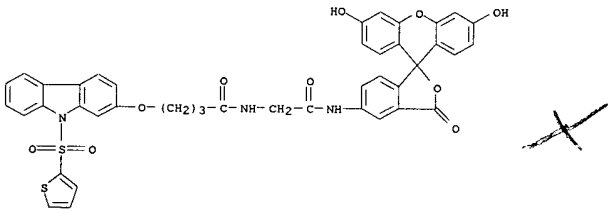
AB Novel tethered hapten intermediates and related conjugates based on carbazole and/or dibenzofuran, as well as methods for making and using such conjugates are disclosed. Haptens based on the above core structures may be substituted at any position on the arom. rings with a wide variety of substituents. Uses of tethered intermediates, immunogens, tracers, solid supports and labeled oligonucleotides are all described as are methods for using the intermediates to prep. the conjugates, methods of using the conjugates to make and purify antibodies, as assay tracers, and in nucleic acid hybridization assays. Kits contg. haptenated oligonucleotides and anti-hapten conjugates are also described.

IT **163344-86-3P 172683-45-3P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(haptens, tracers, immunogens and antibodies for carbazole and dibenzofuran derivs.)

RN 163344-86-3 CAPLUS
CN Butanamide, N-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)methyl]-4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)

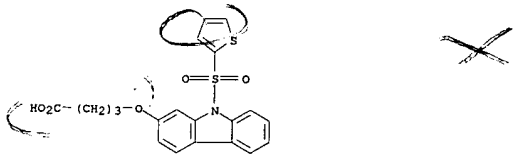


RN 172683-45-3 CAPLUS
CN Butanamide, N-[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-2-oxoethyl]-4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)



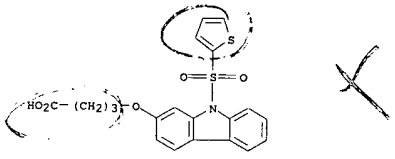
IT **151953-51-4DP**, albumin conjugates
RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(haptens, tracers, immunogens and antibodies for carbazole and dibenzofuran derivs.)

RN 151953-51-4 CAPLUS
CN Butanoic acid, 4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)

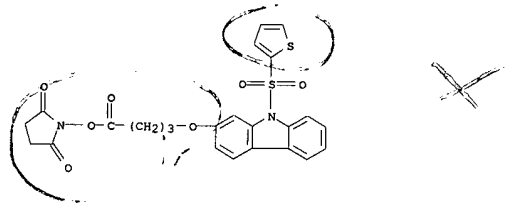


IT **151953-51-4P 163344-93-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(haptens, tracers, immunogens and antibodies for carbazole and dibenzofuran derivs.)

RN 151953-51-4 CAPLUS
CN Butanoic acid, 4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)



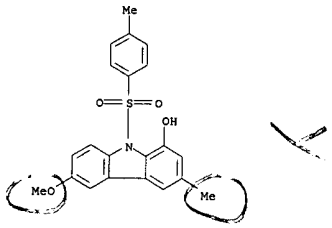
RN 163344-93-2 CAPLUS
CN 9H-Carbazole, 2-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutoxy]-9-(2-thienylsulfonyl)- (9CI) (CA INDEX NAME)



L21 ANSWER 15 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:803969 CAPLUS
DOCUMENT NUMBER: 123:222844
TITLE: Clausenol and clausenine - two carbazole alkaloids from Clausena anisata
AUTHOR(S): Chakraborty, A.; Chowdhury, B. K.; Bhattacharyya, P.
CORPORATE SOURCE: Dep. Chem., Sch. Tropical Medicine, Calcutta, 700 073, India
SOURCE: Phytochemistry (1995), 40(1), 295-8
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two new carbazole alkaloids, designated as clausenol and clausenine, were isolated from an alc. ext. of the stem bark of Clausena anisata. Their structures were established as 1-hydroxy-6-methoxy-3-methylcarbazole and 1,6-dimethoxy-3-Me carbazole, resp., from phys. and chem. evidence and synthesis. Clausenol was active against Gram-pos. and Gram-neg. bacteria and fungi.

IT **168293-31-0**
RL: RCT (Reactant)
(redn. of)
RN 168293-31-0 CAPLUS
CN 9H-Carbazol-1-ol, 6-methoxy-3-methyl-9-[(4-methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)



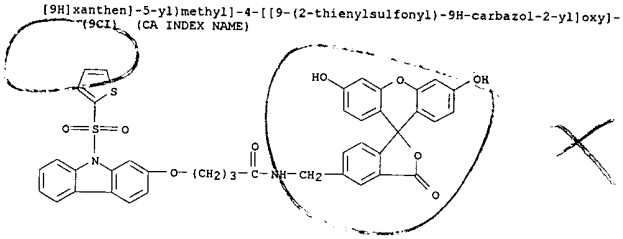
L21 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:573834 CAPLUS
DOCUMENT NUMBER: 122:310291
TITLE: Haptens, tracers, immunogens and antibodies for carbazole and dibenzofuran derivatives
INVENTOR(S): Fino, James R.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9503296	A1	19950202	WO 1993-US6832	19930720
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9346856	A1	19950220	AU 1993-46856	19930720
EP 708767	A1	19960501	EP 1993-917298	19930720
EP 708767	B1	20010214		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
AT 199149	E	20010215	AT 1993-917298	19930720
ES 2156128	T3	20010616	ES 1993-917298	19930720
PRIORITY APPLN. INFO.:			WO 1993-US6832 W	19930720

OTHER SOURCE(S): MARPAT 122:310291

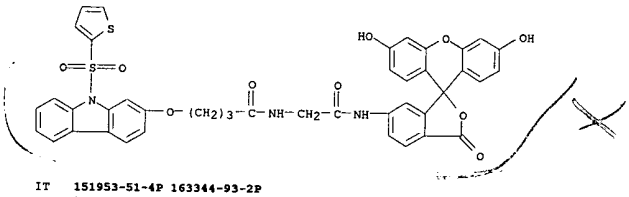
AB Novel tethered hapten intermediates and related conjugates based on carbazole and/or dibenzofuran, as well as methods for making and using such conjugates. Haptens based on the above core structures may be substituted at any position on the arom. rings with a wide variety of substituents. Using tethered intermediates, immunogens, tracers, solid supports and labeled oligonucleotides are all described; as are methods for using the intermediates to prep. the conjugates, methods of using the conjugates to make and purify antibodies, as assay tracers, and in nucleic acid hybridization assays. Kits contg. haptenated oligonucleotides and anti-hapten conjugates are also described.

IT **163344-86-3P 163344-87-4P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(haptens, tracers, immunogens and antibodies for carbazole and dibenzofuran derivs.)
RN 163344-86-3 CAPLUS
CN Butanamide, N-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)methyl]-4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)



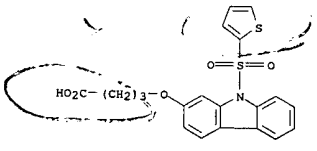
L21 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)

RN 163344-87-4 CAPLUS
CN Butanamide, N-[2-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-6-yl)amino]-2-oxoethyl]-4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)

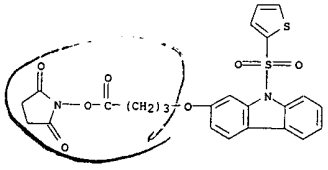


L21 ANSWER 16 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)

IT **151953-51-4P 163344-93-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(haptens, tracers, immunogens and antibodies for carbazole and dibenzofuran derivs.)
RN 151953-51-4 CAPLUS
CN Butanoic acid, 4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)



RN 163344-93-2 CAPLUS
CN 9H-Carbazole, 2-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutoxy]-9-(2-thienylsulfonyl)- (9CI) (CA INDEX NAME)



64

L21 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:465945 CAPLUS
DOCUMENT NUMBER: 123:32984
TITLE: A Versatile Construction of the 8H-Quino[4,3-b]carbazole Ring System as a Potential DNA Binder
AUTHOR(S): Mohanakrishnan, Arasambattu K.; Srinivasan, Panayencheri C.
CORPORATE SOURCE: Department of Organic Chemistry, University of Madras, Madras, 600 025, India
SOURCE: J. Org. Chem. (1995), 60(7), 1939-46
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English

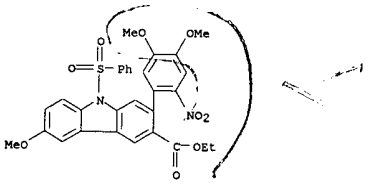
AB A short synthesis of quino[4,3-b]- and quino[3,4-b]carbazoles is reported.

The key step involves the prepn. of suitable 2,3-divinylindoles by consecutive Wittig reactions. The thermal electrocyclic reaction of the divinylindole, with concomitant dehydrogenation in the presence of Pd-C, gave the (nitroaryl)carbazole, which, on reductive cyclization, led to the

quinocarbazole. Cleavage of the phenylsulfonyl group, followed by phosphorus oxychloride treatment and subsequent displacement of the chlorine with 3-(dimethylamino)propylamine, gave the title compds. in 25-30% overall yield.

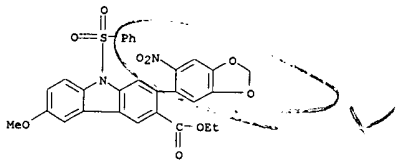
IT **164261-47-6P 164261-48-7P 164261-49-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of quinocarbazole ring systems)

RN 164261-47-6 CAPLUS
CN 9H-Carbazole-3-carboxylic acid, 2-(4,5-dimethoxy-2-nitrophenyl)-6-methoxy-9-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)

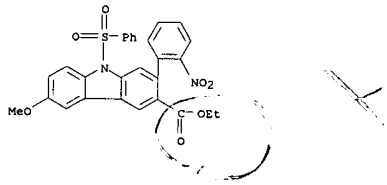


RN 164261-48-7 CAPLUS
CN 9H-Carbazole-3-carboxylic acid, 6-methoxy-2-(6-nitro-1,3-benzodioxol-5-yl)-9-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)

L21 ANSWER 17 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)

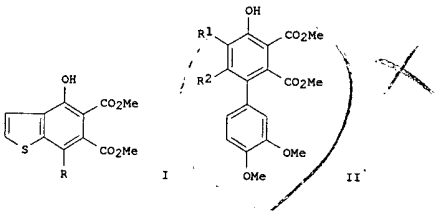


RN 164261-49-8 CAPLUS
CN 9H-Carbazole-3-carboxylic acid, 6-methoxy-2-(2-nitrophenyl)-9-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)



L21 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:183463 CAPLUS
DOCUMENT NUMBER: 122:31186
TITLE: An Efficient Synthesis of Heterocyclic Analogs of 1-Arylnaphthalene Lignans
AUTHOR(S): Kuroda, Tooru; Takahashi, Masami; Ogiku, Tsuyoshi; Ohmizu, Hiroshi; Nishitani, Takashi; Kondo, Kazuhiko; Iwasaki, Tameo
CORPORATE SOURCE: Department of Synthetic Chemistry, Tanabe Seiyaku Co. Ltd., Yodogawa, 532, Japan
SOURCE: J. Org. Chem. (1994), 59(24), 7353-7
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:31186
GI

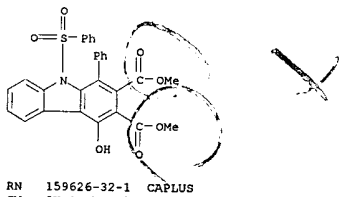


AB The heterocyclic analogs I {R = 3,4-(MeO)2C6H3, 4-MeC6H4, 3,4-Cl2C6H3, 3,4-methylenedioxyphenyl, Ph, 3-thienyl] and II [R1R2 = SCH:CH, CH:CHCH:N] of 1-arylnaphthalene lignans were synthesized by Diels-Alder reactions of heterocyclic .alpha.-acetoxybenzyl aldehydes with di-Me acetylenedicarboxylate. A pathway for formation of I and II through the intermediacy of heteroarom. isobenzofurans derived from the acetoxy aldehydes is discussed.

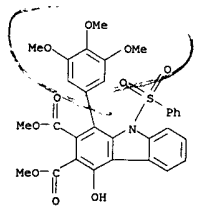
IT **159626-31-0P 159626-32-1P 159626-33-2P 159626-34-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of heterocyclic analogs of 1-arylnaphthalene lignans)

RN 159626-31-0 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 4-hydroxy-1-phenyl-9-(phenylsulfonyl)-, dimethyl ester (9CI) (CA INDEX NAME)

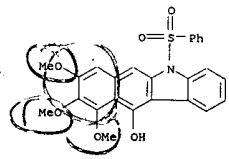
L21 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 159626-32-1 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 4-hydroxy-9-(phenylsulfonyl)-1-(3,4,5-trimethoxyphenyl)-, dimethyl ester (9CI) (CA INDEX NAME)

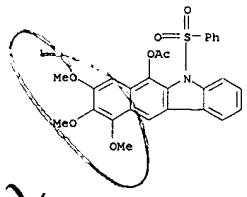


RN 159626-33-2 CAPLUS
CN 5H-Benzo[b]carbazol-11-ol, 8,9,10-trimethoxy-5-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



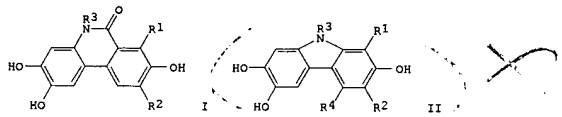
RN 159626-34-3 CAPLUS
CN 5H-Benzo[b]carbazol-6-ol, 8,9,10-trimethoxy-5-(phenylsulfonyl)-, acetate (ester) (9CI) (CA INDEX NAME)

L21 ANSWER 18 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



L21 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:457315 CAPLUS
DOCUMENT NUMBER: 121:57315
TITLE: Identification of Tricyclic Analogs Related to Ellagic Acid as Potent/Selective Tyrosine Protein Kinase Inhibitors
AUTHOR(S): Dow, Robert L.; Chou, Thomas T.; Bechle, Bruce M.; Goddard, Colin; Larson, Eric R.
CORPORATE SOURCE: Central Research Division, Pfizer Inc., Groton, CT, 06340, USA
SOURCE: J. Med. Chem. (1994), 37(14), 2224-31
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



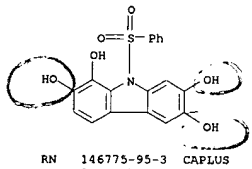
AB Tetraphenolic phenanthridinone and carbazole derivs. I and II [R1, R2 = H, OH; R3 = H, Et, CH2Ph, CH2C6H4R-4, CH2C6H3Cl2-3,4, COC6H4r-4,SO2C6H4R-4, 3-pyridylmethyl, (CH2)3Ph, etc.; R = H, NO2, SO2Ph, CN, CF3, Br, Ph, CMe3, SO2Me; R4 = H, Br] related to ellagic acid were prepd. and tested for enhanced specificity for inhibition of the tyrosine-specific protein kinase pp60src over other protein kinases. These ring systems were prepd. via a general sequence of biaryl bond formation followed by cyclization to form the desired tricyclic ring systems. N-Alkylation, acylation, or sulfonylation and deprotection with BBr3 afforded I and II. Several analogs I and II have potencies comparable to that of ellagic acid and exhibit substantially enhanced selectivities for inhibition of pp60src relative to protein kinase A (PKA), a serine/threonine protein kinase. Carbazole-based analogs II (R1 = OH, R2 = H, R3 = CH2C6H4CN-4, CH2C6H3Cl2-2,6, CH2C6H4SO2Ph) are submicromolar inhibitors of pp60src, with potency for the target tyrosine kinase comparable to that of ellagic acid, however with 2 orders of magnitude greater selectivity vs. that for PKA. As seen for ellagic acid, members of the phenanthridinone-based series, e.g. I (R1 = R3 = H, R2 = OH), exhibited inhibition of pp60src in a manner which is partial mixed noncompetitive with respect to ATP, while carbazole analogs, e.g. II (R1 = R3 = R4 = H, R2 = OH), inhibit pp60src in an ATP competitive manner.

IT **146775-94-2P 146775-95-3P 146776-12-7P 146776-14-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and tyrosine-specific protein kinase and cAMP-dependent kinase inhibitory activities of)

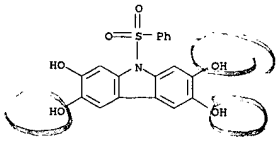
RN 146775-94-2 CAPLUS

L21 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)

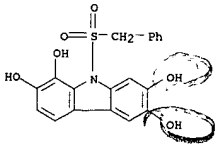
CN 9H-Carbazole-1,2,6,7-tetrol, 9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 146775-95-3 CAPLUS
CN 9H-Carbazole-2,3,6,7-tetrol, 9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

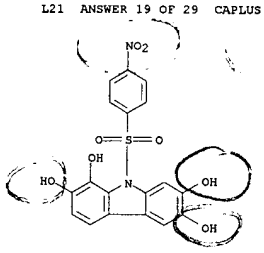


RN 146776-12-7 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 146776-14-9 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-[(4-nitrophenyl)sulfonyl]- (9CI) (CA INDEX NAME)

L21 ANSWER 19 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



L21 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:184643 CAPLUS
DOCUMENT NUMBER: 120:184643
TITLE: Conducting multiple ligase chain reactions in a single sample
INVENTOR(S): Bouma, Stanley R.; Gordon, Julian; Hoijer, Joannel; Jou, Cynthia; Rhoads, James
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9320227	A1	19931014	WO 1993-US3034	19930331
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9339429	A1	19931108	AU 1993-39429	19930331
EP 633944	A1	19950118	EP 1993-908700	19930331
EP 633944	B1	20001108		
R: BE, CH, DE, ES, FR, GB, IT, LI				
JP 07505293	T2	19950615	JP 1993-517672	19930331
EP 1018649	A2	20000712	EP 2000-102158	19930331
EP 1018649	A3	20001129		
R: BE, CH, DE, ES, FR, GB, IT, LI				
ES 2153379	T3	20010301	ES 1993-908700	19930331
US 5869252	A	19990209	US 1996-769176	19961218
US 6100099	A	20000808	US 1998-181245	19981028
US 6210898	B1	20010403	US 1999-397537	19990916

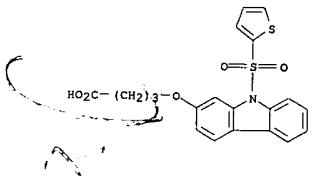
PRIORITY APPLN. INFO.: US 1992-860702 A2 19920331
EP 1993-908700 A3 19930331
WO 1993-US3034 A 19930331
US 1994-302646 B1 19940906
US 1996-769176 A3 19961218
US 1998-181245 A3 19981028

AB Multiple ligase chain reaction are carried out in a single sample by selecting .gtoreq.2 target sequences and using a set of 4 probes to simultaneously amplify the target sequences. Preferably, all the probe sets have one member labeled with a common label or hapten and the rest of the set is labeled with a label or hapten specific to the set. An immunochromatog. strip with a diagonal array of capture spots for use in the method is also described. Using the described method DNA from a cystic fibrosis patient was simultaneously screened for the presence of mutations G551D, W128X, and .DELTA.F508. Each of the 3 sets of probes contained 2 labeled with biotin and 1 labeled with fluorescein, with thiophene carbazole, or with the dansyl group.

IT **151953-51-4D**, conjugates with oligonucleotides
RL: USES (Uses)
(in multiplex ligase chain reaction detection of desease-causing mutations)

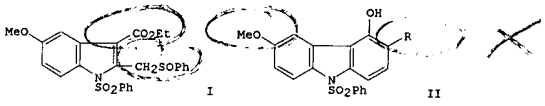
RN 151953-51-4 CAPLUS
CN Butanoic acid, 4-[[9-(2-thienylsulfonyl)-9H-carbazol-2-yl]oxy]- (9CI) (CA INDEX NAME)

L21 ANSWER 20 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



L21 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2002 ACS

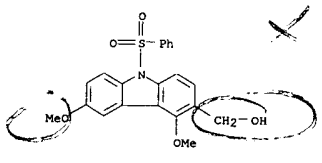
ACCESSION NUMBER: 1993:254685 CAPLUS
DOCUMENT NUMBER: 118:254685
TITLE: One pot synthesis of 4-hydroxy-3-substituted carbazoles via sulfoxide stabilized carbanion
AUTHOR(S): Mohanakrishnan, Arasambattu K.; Srinivasan, Panayencheri C.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Madras, Madras, 600 025, India
SOURCE: Tetrahedron Lett. (1993), 34(8), 1343-6
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 118:254685
GI



AB A convenient method for the synthesis of 4-hydroxy-3-substituted carbazoles (potential intermediate for pyridocarbazole alkaloids) from Et 5-methoxy-2-phenylsulfinylmethyl-1-phenylsulfonylindole-3-carboxylate (I) is reported. Thus, reaction of I with Michael acceptors RCH:CH2 (R = Ac, CN, CO2Et) with consecutive intramol. cyclization afforded hydroxycarbazoles II in 50-72% yield.

IT **147848-09-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and deprotection and oxidn. of)

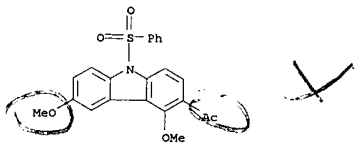
RN 147848-09-7 CAPLUS
CN 9H-Carbazole-3-methanol, 4,6-dimethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



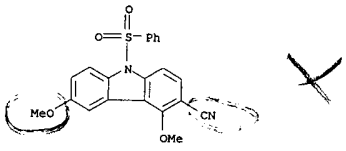
IT **147848-06-4P 147848-07-5P 147848-10-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and deprotection of)

RN 147848-06-4 CAPLUS
CN 9H-Carbazole, 3-acetyl-4,6-dimethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

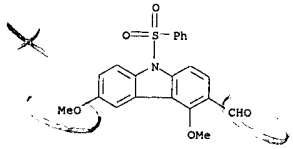
L21 ANSWER 21 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 147848-07-5 CAPLUS
CN 9H-Carbazole-3-carbonitrile, 4,6-dimethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



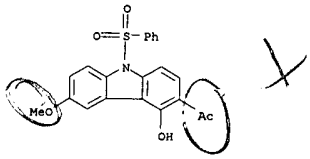
RN 147848-10-0 CAPLUS
CN 9H-Carbazole-3-carboxaldehyde, 4,6-dimethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



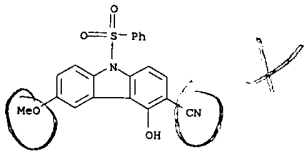
IT **147848-03-1P 147848-04-2P 147848-05-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and methylation of)

RN 147848-03-1 CAPLUS
CN 9H-Carbazol-4-ol, 3-acetyl-6-methoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

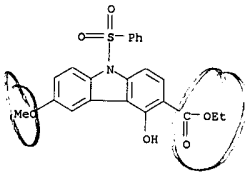
67



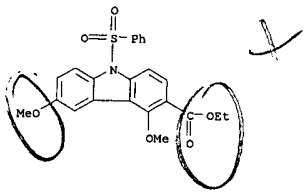
RN 147848-04-2 CAPLUS
CN 9H-Carbazole-3-carbonitrile, 4-hydroxy-6-methoxy-9-(phenylsulfonyl)-(9CI)
(CA INDEX NAME)



RN 147848-05-3 CAPLUS
CN 9H-Carbazole-3-carboxylic acid, 4-hydroxy-6-methoxy-9-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)



IT **147848-08-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and redn. of)
RN 147848-08-6 CAPLUS
CN 9H-Carbazole-3-carboxylic acid, 4,6-dimethoxy-9-(phenylsulfonyl)-, ethyl ester (9CI) (CA INDEX NAME)

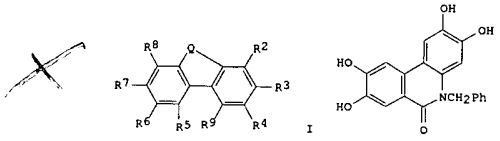


L21 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:191567 CAPLUS
DOCUMENT NUMBER: 118:191567
TITLE: Preparation of tricyclic polyhydroxylic tyrosine kinase inhibitors
INVENTOR(S): Dow, Robert Lee
PATENT ASSIGNEE(S): Pfizer Inc., USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9221660	A1	19921210	WO 1992-US2799	19920410
W: CA, FI, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
CA 2108889	AA	19921130	CA 1992-2108889	19920410
EP 586608	A1	19940316	EP 1992-917271	19920410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 06503095	T2	19940407	JP 1992-510250	19920410
US 6194439	B1	20010227	US 1993-142284	19931123
PRIORITY APPLN. INFO.:			US 1991-706629 A2	19910529
			WO 1992-US2799 W	19920410
OTHER SOURCE(S):	MARPAT 118:191567			

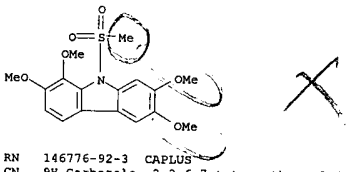
GI



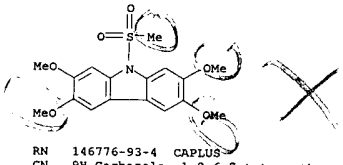
I II

AB Title compds. I (Q = Z1N, Z2C, COX wherein Z1 = H, PhCH2 C1-4 alkyl, pyridylmethyl, naphthenylcarbonyl etc.; Z2 = H, O, PhCH2, hydroxybenzyl, pyridylmethyl, quinolinylmethyl, etc.; .gtoreq.2 and .ltoreq.4 of R2-R8 = HO, the remainder being H; R9 = H, halo, such that R9 = halo when Q = Z1N), useful as tyrosine kinase inhibitors (no data), are prepd. To a 0.degree. soln. of 5-(phenylmethyl)-2,3,8,9-tetramethoxy-6-(5H)-phenanthridinone in CH2Cl2 was added BBr3 to give the title compd. (II).

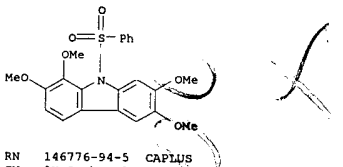
IT **146776-91-2P 146776-92-3P 146776-93-4P**
146776-94-5P 146777-11-9P 146777-12-0P
146777-13-1P 146777-18-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction of, in prepn. of tyrosine kinase inhibitors)
RN 146776-91-2 CAPLUS
CN 9H-Carbazole, 1,2,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)



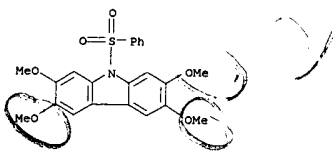
RN 146776-92-3 CAPLUS
CN 9H-Carbazole, 2,3,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)



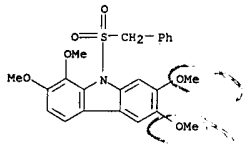
RN 146776-93-4 CAPLUS
CN 9H-Carbazole, 1,2,6,7-tetramethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



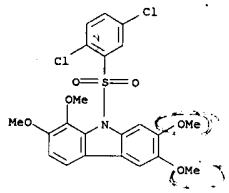
RN 146776-94-5 CAPLUS
CN 9H-Carbazole, 2,3,6,7-tetramethoxy-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



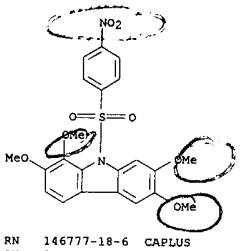
L21 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)
RN 146777-11-9 CAPLUS
CN 9H-Carbazole, 1,2,6,7-tetramethoxy-9-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)



RN 146777-12-0 CAPLUS
CN 9H-Carbazole, 9-[(2,5-dichlorophenyl)sulfonyl]-1,2,6,7-tetramethoxy- (9CI)
(CA INDEX NAME)

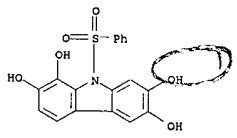


RN 146777-13-1 CAPLUS
CN 9H-Carbazole, 1,2,6,7-tetramethoxy-9-[(4-nitrophenyl)sulfonyl]- (9CI) (CA INDEX NAME)

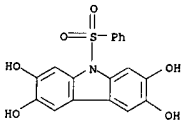


RN 146777-18-6 CAPLUS
CN 9H-Carbazole, 4-bromo-1,2,6,7-tetramethoxy-9-(methylsulfonyl)- (9CI) (CA

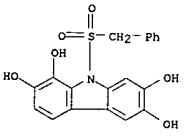
L21 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



RN 146775-95-3 CAPLUS
CN 9H-Carbazole-2,3,6,7-tetrol, 9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

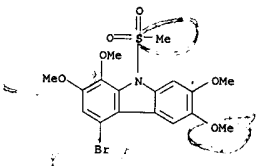


RN 146776-12-7 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

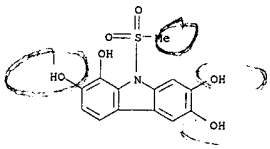


RN 146776-13-8 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-[(2,5-dichlorophenyl)sulfonyl]- (9CI) (CA INDEX NAME)

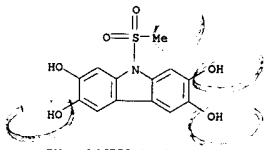
L21 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)
INDEX NAME)



IT **146775-92-0P 146775-93-1P 146775-94-2P**
146775-95-3P 146776-12-7P 146776-13-8P
146776-14-9P 146776-20-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as tyrosine kinase inhibitor)
RN 146775-92-0 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-(methylsulfonyl)- (9CI) (CA INDEX NAME)

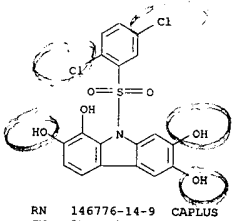


RN 146775-93-1 CAPLUS
CN 9H-Carbazole-2,3,6,7-tetrol, 9-(methylsulfonyl)- (9CI) (CA INDEX NAME)

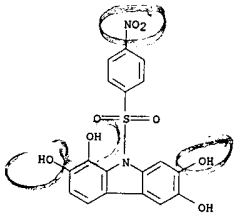


RN 146775-94-2 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

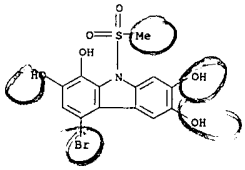
L21 ANSWER 22 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



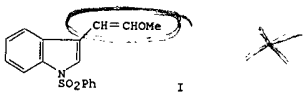
RN 146776-14-9 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 9-[(4-nitrophenyl)sulfonyl]- (9CI) (CA INDEX
NAME)



RN 146776-20-7 CAPLUS
CN 9H-Carbazole-1,2,6,7-tetrol, 4-bromo-9-(methylsulfonyl)- (9CI) (CA INDEX NAME)

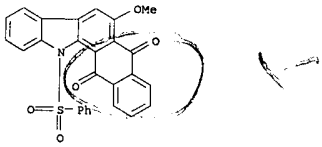


L21 ANSWER 23 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:59141 CAPLUS
DOCUMENT NUMBER: 116:59141
TITLE: New Diels-Alder reactions of (E/Z)-2'-methoxy-substituted 3-vinylindoles with carbo- and heterodienophiles: regio- and stereoselective access to [b]-annelated indoles and functionalized or [a]-annelated carbazoles
AUTHOR(S): Pindur, Ulf; Kim, Myung Hwa; Rogge, Martina; Massa, Werner; Molinier, Michel
CORPORATE SOURCE: Dep. Chem. Pharm., Univ. Mainz, Mainz, D-6500/1, Germany
SOURCE: J. Org. Chem. (1992), 57(3), 910-15
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 116:59141
GI



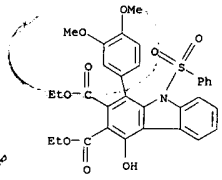
I

AB The (E)- and (Z)-3-vinylindoles I react with some carbo- and azodienophiles to furnish new carbazoles and pyridazinoindoles. The conservation of the E and Z stereochem. of I in these Diels-Alder reactions was investigated, and a mechanistic rationalization is given for the stereoselective and regioselective results obsd.
IT **138054-33-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 138054-33-8 CAPLUS
CN 5H-Naphtho[2,3-a]carbazole-5,13(12H)-dione, 6-methoxy-12-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

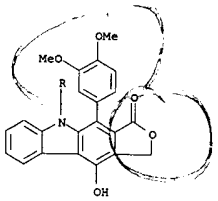


L21 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)

RN 123694-45-1 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 1-(3,4-dimethoxyphenyl)-4-hydroxy-9-(phenylsulfonyl)-, diethyl ester (9CI) (CA INDEX NAME)



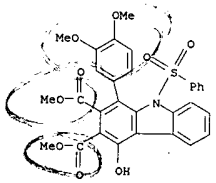
RN 123694-47-3 CAPLUS
CN 3H-Furo[3,4-b]carbazol-3-one, 4-(3,4-dimethoxyphenyl)-1,5-dihydro-10-hydroxy-5-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



L21 ANSWER 24 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:639708 CAPLUS
DOCUMENT NUMBER: 115:239708
TITLE: Preparation of (3,4-dialkoxyphenyl)benzoheterocycle derivatives and hypolipemics containing them
INVENTOR(S): Iwasaki, Tameo; Takashima, Koki
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03072422	A2	19910327	JP 1990-121518	19900511
PRIORITY APPLN. INFO.:			JP 1989-122381	19890516

OTHER SOURCE(S): MARPAT 115:239708
GI For diagram(s), see printed CA Issue.
AB Hypolipemics contg. the title derivs. I [R1 = H, lower alkoxycarbonyl and R2 = alkoxycarbonyl or R1R2 = CH2OCO; R3, R4 = lower alkoxy; ring A = (un)substituted S- or N-contg. heterocycle] or their pharmacol. acceptable salts are claimed for treatment of hyperlipemia and/or arteriosclerosis. 3-(Dimethoxymethyl)thiophene (10.0 g) in THF was treated with BuLi then 10.5 g of 3,4-(MeO)2C6H3CHO to give 18.0 g 2-(.alpha.-hydroxy-3,4-dimethoxybenzyl)-3-(dimethoxymethyl)thiophene, 1.0 g of which in toluene was treated with HBO3 under reflux to give 470 mg 2-(.alpha.-hydroxy-3,4-dimethoxybenzyl)-3-thiophenecarbaldehyde (II). A mixt. of II (1.5 g), Ac2O, N,N-dimethylaminopyridine, and Et3N in THF was stirred to give 1.7 g 2-(.alpha.-acetoxy-3,4-dimethoxybenzyl)-3-thiophenecarbaldehyde, 1.5 g of which was treated with MeOCOC.tplbond.CCO2Me in benzene contg. CF3CO2H under reflux for 1 h to give 350 mg 4-hydroxy-5,6-bis(methoxycarbonyl)-7-(3,4-dimethoxyphenyl)benzo[b]thiophene (III). III was administered as a diet to rats previously fed a diet contg. cholesterol and Na cholate, decreasing rate of serum cholesterol and increasing rate of high-d.-lipoprotein cholesterol were 51 and 88%, resp.
IT **123694-44-0P 123694-45-1P 123694-47-3P**
RL: PREP (Preparation)
(prepn. of, as hypolipemic)
RN 123694-44-0 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 1-(3,4-dimethoxyphenyl)-4-hydroxy-9-(phenylsulfonyl)-, dimethyl ester (9CI) (CA INDEX NAME)

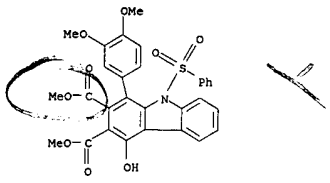


L21 ANSWER 25 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:614386 CAPLUS
DOCUMENT NUMBER: 111:214386
TITLE: Preparation of benzoheterocycles as hypolipemics
INVENTOR(S): Iwasaki, Tameo; Takashima, Kohki
PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

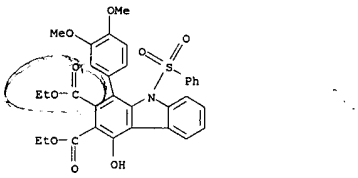
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 316939	A2	19890524	EP 1988-119220	19881118
EP 316939	A3	19901205		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 01135766	A2	19890529	JP 1987-294736	19871120
IL 88295	A1	19930315	IL 1988-88295	19881104
US 4952602	A	19900828	US 1988-268894	19881108
FI 8805323	A	19890521	FI 1988-5323	19881117
DK 8806459	A	19890521	DK 1988-6459	19881118
AU 8825707	A1	19890525	AU 1988-25707	19881118
AU 611736	B2	19910620		
HU 50766	A2	19900328	HU 1988-5962	19881118
HU 201911	B	19910128		
CN 1033276	A	19890607	CN 1988-108026	19881119
JP 01265072	A2	19891023	JP 1989-25272	19890202
JP 07037456	B4	19950426		
PRIORITY APPLN. INFO.:			JP 1987-294736	19871120

OTHER SOURCE(S): MARPAT 111:214386
GI For diagram(s), see printed CA Issue.
AB Title compds. I [R1 = H, alkoxycarbonyl; R2 = alkoxycarbonyl; R1R2 = CH2OC(O); R3, R4 = alkoxy; ring A = (substituted) S- or N-contg. heterocycle] are prepd. from heterocycles II (R5 = H, alkyl, acyl; R6 = CHO), II (R5R6 = CHOR7; R7 = alkyl), or I (R1 = CO2R8; R2 = CO2R9; R8,R9 = alkyl). Treatment of II (R3 = R4 = MeO; R5 = Ac; R6 = CHO; ring A = Q) with C2(CO2Me)2 in C6H6 in the presence of CF3CO2H gave I (R1 = R2 = CO2Me; R3 = R4 = OMe; ring A = Q), which at 100 mg/100 g diet was given to rats (fed with a diet contg. 2 wt.% cholesterol and 0.5 wt.% Na cholate) to show 51% decrease of the total serum cholesterol and 88% increase of high-d. lipoprotein cholesterol.
IT **123694-44-0P 123694-45-1P 123694-47-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as hypolipemic)
RN 123694-44-0 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 1-(3,4-dimethoxyphenyl)-4-hydroxy-9-(phenylsulfonyl)-, dimethyl ester (9CI) (CA INDEX NAME)

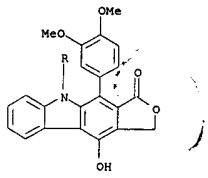
70



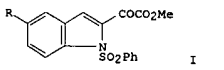
RN 123694-45-1 CAPLUS
CN 9H-Carbazole-2,3-dicarboxylic acid, 1-(3,4-dimethoxyphenyl)-4-hydroxy-9-(phenylsulfonyl)-, diethyl ester (9CI) (CA INDEX NAME)



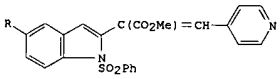
RN 123694-47-3 CAPLUS
CN 3H-Furo[3,4-b]carbazol-3-one, 4-(3,4-dimethoxyphenyl)-1,5-dihydro-10-hydroxy-5-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



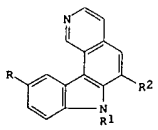
ACCESSION NUMBER: 1989:457580 CAPLUS
DOCUMENT NUMBER: 111:57580
TITLE: Synthesis of 6-substituted 7H-pyrido[4,3-c]carbazoles
AUTHOR(S): Modi, Sandeep P.; Zayed, Abdel Hadi; Archer, Sydney
CORPORATE SOURCE: Dep. Chem., Rensselaer Polytech. Inst., Troy, NY, 12180, USA
SOURCE: J. Org. Chem. (1989), 54(13), 3084-7
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 111:57580
GI



I



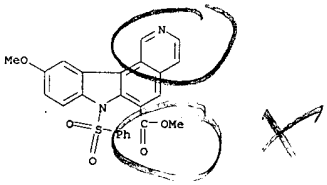
II



III

AB Condensation of N-(phenylsulfonyl)-2-methoxalylindoles I (R = H, MeO) with a modified Wittig reagent prepd. from diphenyl(4-pyridylmethyl)phosphine oxide furnished the olefins II (R = H, MeO, resp.). Oxidative photocyclization furnished the 6-carbomethoxy-7H-pyrido[4,3-c]carbazoles III (R = R1 = H; R = MeO, R1 = H; R2 = CO2Me). Redn. with LiAlH4 and then treatment with MeNCO gave the corresponding N-methylcarbamates III (R = R1 = H; R = MeO, R1 = H; R2 = CH2O2CNHMe) which are potential antitumor agents. Oxidn. of III (R = R1 = H; R = MeO, R1 = H; R2 = CH2OH) with MnO2 furnished the aldehydes III (R2 = CHO). Treatment with Ph3P:CH2 gave olefins which upon catalytic redn. afforded the 6-ethyl-7H-pyrido[4,3-c]carbazoles III (R = R1 = H, R2 = Et) and the known III (R = MeO, R1 = H, R2 = Et).
IT **121268-98-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 121268-98-2 CAPLUS
CN 7H-Pyrido[4,3-c]carbazole-6-carboxylic acid, 10-methoxy-7-(phenylsulfonyl)-, methyl ester (9CI) (CA INDEX NAME)

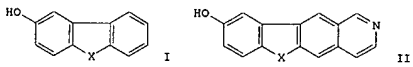


L21 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2002 ACS

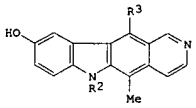
ACCESSION NUMBER: 1988:510251 CAPLUS
DOCUMENT NUMBER: 109:110251
TITLE: A process for preparing hydroxyl derivatives of compounds containing a carbazole, dibenzofuran or dibenzothiophene group as anticancer agents
INVENTOR(S): Langendoen, Albert; Koomen, Gerrit Jan; Pandit, Upendra Kumar
PATENT ASSIGNEE(S): Cedona Pharmaceuticals B. V., Neth.
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 257701	A1	19880302	EP 1987-201548	19870814
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 63258474	A2	19881025	JP 1987-201984	19870814
PRIORITY APPLN. INFO.:			NL 1986-2080	19860815
OTHER SOURCE(S):		MARPAT 109:110251		

GI



I II



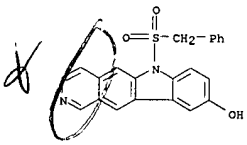
III

AB The title compds. I, II, etc. (X = NR, O, S; R = H, alkyl, PhCH2, Ph, Ph2CH, SO2R1, COR1, CO2R1 wherein R1 = alkyl, PhCH2, Ph, Ph2CH), useful as anticancer agents (no data) were prepd. I, II, etc., may contain substituents such as alkyl groups [i.e., III (R2 = H, Me; R3 = Me, etc.], halo, NO2, etc. Formylation of 6-methylellipticine, followed by Baeyer-Villiger reaction of the resulting formylellipticine, gave 83% 6-methyl-9-hydroxyellipticine.

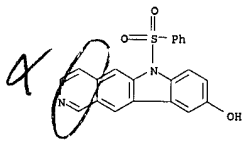
IT **115552-22-2P 115552-23-3P 115552-24-4P 115552-37-9P 115552-38-0P 115552-39-1P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as anticancer agent)

RN 115552-22-2 CAPLUS
CN 6H-Pyrido[4,3-b]carbazol-9-ol, 6-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

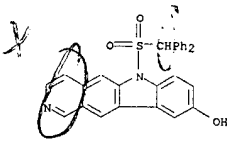
L21 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



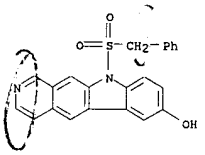
RN 115552-23-3 CAPLUS
CN 6H-Pyrido[4,3-b]carbazol-9-ol, 6-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 115552-24-4 CAPLUS
CN 6H-Pyrido[4,3-b]carbazol-9-ol, 6-[(diphenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

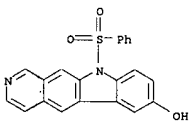


RN 115552-37-9 CAPLUS
CN 10H-Pyrido[3,4-b]carbazol-7-ol, 10-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

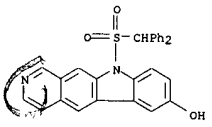


RN 115552-38-0 CAPLUS
CN 10H-Pyrido[3,4-b]carbazol-7-ol, 10-(phenylsulfonyl)- (9CI) (CA INDEX

L21 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)
NAME)

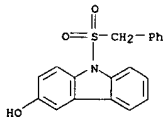


RN 115552-39-1 CAPLUS
CN 10H-Pyrido[3,4-b]carbazol-7-ol, 10-[(diphenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)



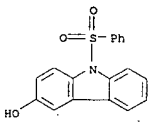
IT **115552-08-4P 115552-09-5P 115552-10-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, in prepn. of anticancer agent)

RN 115552-08-4 CAPLUS
CN 9H-Carbazol-3-ol, 9-[(phenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)

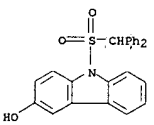


RN 115552-09-5 CAPLUS
CN 9H-Carbazol-3-ol, 9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

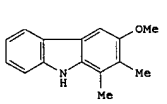
L21 ANSWER 27 OF 29 CAPLUS COPYRIGHT 2002 ACS (Continued)



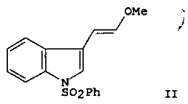
RN 115552-10-8 CAPLUS
CN 9H-Carbazol-3-ol, 9-[(diphenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)



L21 ANSWER 28 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1987:515825 CAPLUS
DOCUMENT NUMBER: 107:115825
TITLE: [4 + 2]-Cycloaddition to 4-demethoxycarbazomycin
AUTHOR(S): Pindur, Ulf; Pfeuffer, Ludwig
CORPORATE SOURCE: Dep. Pharm., Univ. Mainz, Mainz, D-6500, Fed. Rep. Ger.
SOURCE: Heterocycles (1987), 26(2), 325-7
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 107:115825
GI



I



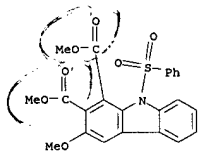
II

AB The first synthesis of 4-demethoxycarbazomycin (I) is described; the key step is the cycloaddn. using a 3-vinylindole equiv. II and di-Me acetylenedicarboxylate as the dienophile.

IT **110128-41-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and redn. of)

RN 110128-41-1 CAPLUS

CN 9H-Carbazole-1,2-dicarboxylic acid, 3-methoxy-9-(phenylsulfonyl)-, dimethyl ester (9CI) (CA INDEX NAME)



L21 ANSWER 29 OF 29 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1984:423792 CAPLUS
DOCUMENT NUMBER: 101:23792
TITLE: 2-Cyano-.DELTA.3-piperideines. 13. Synthesis and reactivity of N-protected dehydrosecodine equivalents
AUTHOR(S): Sundberg, Richard J.; Grierson, David S.; Husson, Henri Philippe
CORPORATE SOURCE: Inst. Chim. Subst. Nat., CNRS, Gif s/Yvette, 91190, Fr.
SOURCE: J. Org. Chem. (1984), 49(13), 2400-4
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

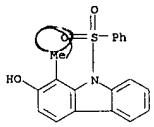
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A direct synthesis of 1-(phenylsulfonyl)secodine (I, R1 = H) is accomplished by lithiation of 1-(phenylsulfonyl)-3-[2-(2-ethyl-1,2,3,6-tetrahydropyridyl)ethyl]indole, reaction with Me pyruvate, and dehydration. The 2-cyano-.DELTA.3-piperideine derivs. of both the carbinol precursor II (R1 = cyano R2 = HO) and of I (R1 = cyano) were characterized. Various reaction conditions under which 1-(phenylsulfonyl)dehydrosecodine (III) could be generated were examd. but no products of either the Aspidosperma or Iboga structural type have been characterized. Instead, disproportionation of the dihydropyridine intermediate appears to be the dominant reaction. Reductive desulfonylation of the carbinol intermediate IV gave 16-hydroxy-16,17-dihydrosecodine (isosecodinol) (V; R3 = HO), but under the same conditions I (R1 = H) generates 16,17-dihydrosecodine (V; R3 = H).

IT **89850-33-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 89850-33-9 CAPLUS

CN 9H-Carbazol-2-ol, 1-methyl-9-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	128.07	1091.35

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-17.97	-18.59

STN INTERNATIONAL LOGOFF AT 10:46:38 ON 11 JUN 2002